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ACTOR-OBSERVER DIFFERENCES IN CAUSAL ATTRIBUTION  
AND SANCTIONING EVALUATION

by



TAMARA JOCELYN FERGUSON

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH  
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THE UNIVERSITY OF ALBERTA  
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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled "Actor-Observer Differences in Causal Attribution and Sanctioning Evaluation".  
submitted by Tamara Jocelyn Ferguson  
in partial fulfilment of the requirements for the degree of  
Doctor of Philosophy.

Date.....*August 8, 1980*.....



This dissertation is dedicated to my parents,

Harlan and Betty Sutherland,

for their unfailing support, love, and encouragement.





## Abstract

This dissertation examined the link between causal attributions for, and sanctioning evaluations of, actors' success and failure on an interpersonal task. In Study 1, 110 (58 males, 52 females) college students were randomly assigned to one of eight conditions of a 2 (actor vs. observer perspective) X 2 (public vs. private evaluation context) X 2 (causal attribution judgments preceded vs. followed by sanctioning assessments) factorial design, in which the outcome was always failure. In Study 2, 212 (104 males, 108 females) college students were assigned to one of 12 conditions of a 2 (actor vs. observer perspective) X 2 (success vs. failure outcome) X 3 (high vs. low vs. no task difficulty information provided) factorial design, in which the evaluation context was always public. The client-therapist paradigm was used in both experiments, in which the actor counselled a presumed client, while an observer viewed the client-therapist exchange. Measures of personal and situational attribution, ascriptions of credit/blame, perceptions of reward deservingness, and decision-time were included in both studies.

The results of the first study showed that actors relative to observers accepted less personal causal responsibility, less blame, and recommended awarding themselves more money for failure when these evaluations



were public rather than private. The opposite pattern of results was found in the private condition. The results of the first study, a pilot study, and a replication experiment ( $n = 28$ ) indicated that the effects of evaluation context were not due to concerns for accuracy, cautiousness, or modesty. The replication experiment also confirmed the idea that actors and observers experience difficulty in the assuming the role of their counterpart and that observers' judgments may have been affected by how they thought actors would respond.

The results of the second study replicated those found in Study 1 under public conditions. Actors, relative to observers, accepted more personal causal responsibility and credit for success than for failure. Low task difficulty information reduced the extent to which actors made self-serving assessments of their success and failure. However, actors' judgments reflected the perception that success was improbable, whereas observers' judgments reflected the perception that success was probable. Observers also evaluated actors more harshly than was expected on the basis of the provided task difficulty information.

Both experiments indicated strong support for the link between causal attribution and sanctioning evaluation, even within an ability-based paradigm. Observers' harsh





judgments indicated a need to consider how the interpersonal vs. intrapersonal nature of the outcome affects responsiveness to causally-relevant information. Responsivity to causally-relevant information may diminish the more the observed behavior implicates the well-being of another person. There is also a need to reconsider the mechanisms underlying self-serving biases in causal attribution. Self-protection concerns may be aroused only under relatively public conditions or when the actor expects to perform the task in the future. Finally, the traditional actor-observer attribution difference may more accurately reflect participants' perceptions of what other people in the situation believe than participants' private beliefs regarding causality.



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## CHAPTER I

### Overview of the Problem

The process of causal attribution has been ascribed considerable importance over the past two decades because of the belief that causal attributions at least partly facilitate the prediction and control of behavior (Heider, 1958; Jones & Davis, 1965; Kelley, 1967, 1972). According to attributional frameworks, the causes to which we attribute our own and others' behaviors significantly affect other types of judgment. A considerable amount of attention has been given to how attributions affect the impressions we form, our affective responses, future performance expectations, feelings of competence, and our subsequent behavioral responses to a person or situation (cf. Abramson, Seligman, & Teasdale, 1978; Jones & Davis, 1965; Kelley, 1967, 1971, 1972; Rule, 1974; Shaw & Reitan, 1969; Weiner, Frieze, Kukla, Reed, Rest, & Rosenbaum, 1972; Weiner & Peter, 1973; Weiner, Russell, & Lerman, 1978).

A central issue in the attribution literature concerns the extent to which the perceiver's perspective affects the attributions offered. Jones and Nisbett (1972) initially proposed that actors attribute their behavior to the situation, while observers attribute the actor's behavior to personal characteristics. While initial research seemed to support this proposal (e.g., Nisbett, Caputo, Legant, & Maracek, 1973; Storms, 1973), subsequent research has also



found that actors sometimes attribute their behavior to personal characteristics and that observers sometimes attribute the actor's behavior to characteristics of the situation (cf. Monson & Snyder, 1977; Solomon, 1978). The conditions under which either tendency will be manifested by actors or observers have not been clearly specified. However, there is some indication that actor-observer attribution differences may be explained in terms of the differential availability or salience of causally-relevant information and in terms of the differential influence of motivational concerns to actors' and observers' processing of the available causal information (e.g., Eisen, 1979; Miller, Norman, & Wright, 1978; Snyder, Stephan, & Rosenfield, 1976, 1978; Taylor & Fiske, 1975, 1978).

While research on actor-observer attribution differences has been productive from an empirical standpoint, research has focused almost exclusively on assessing whether, how, and why assuming different perspectives on a behavior results in causal attribution differences. Very little of this research has gone beyond these concerns to assess whether perspective differences in attribution have any functional significance for perspective differences in other types of judgments or behavior. As suggested by Kelley (1979), actor-observer attribution differences may be of particular importance in the initiation, development, and maintenance of many





interpersonal relationships. When actors' and observers' attributions conflict, this conflict may be manifested in their divergent affective responses to each other or to the situation and in their respective expectations or evaluations of the actor. Such divergences may affect the quality and outcome of many interpersonal relationships (e.g., employee-employer, parent-child, teacher-student). For example, these differences may undermine the ability of "observers" in supervisory roles to modify, improve, or motivate the actor's behavior. For these reasons, it seemed important to examine within the same set of studies whether actor-observer differences in other types of judgment, such as those related to sanctioning, are as pervasive as and could be predicted by actor-observer attribution differences. In the course of examining between-perspective (i.e., actor vs. observer) differences in attribution and sanctioning evaluation, an examination could be made of within-perspective (i.e., actor vs. actor, observer vs. observer) differences in these two types of judgment. Attention to within-perspective comparisons was also thought to be important because of the differing implications of specific areas of research for the extent to which evaluative processes reflect rational or irrational perceptions of the causes of behavior.

The overall goal of this dissertation, therefore, was to examine the relationship between actors' and observers'



causal attributions for, and sanctioning evaluations of, behaviors that resulted in positive or negative outcomes. Causal attribution refers to perceivers' beliefs regarding the extent to which the focal outcome was due to something about the actor's personal characteristics or was due to something about characteristics of the situation in which the behavior occurred. Sanctioning evaluation refers to the ascription of credit-blame and the perception of reward deservingness, i.e., to judgments that reflect approval or disapproval of the actor's behavior and the ensuing outcome. According to current perspectives on judgments related to sanctioning, an actor will be credited or blamed and will receive rewards or punishments to the extent that the actor is held personally causally responsible for a positive or negative outcome that meets, surpasses, or fails to meet adjudged norms of proper conduct (e.g., Harvey & Rule, 1978; Kelley, 1971; Ross & DiTecco, 1975; Shaw & Reitan, 1969; Weiner & Peter, 1973). This treatment of the link between causal attribution and sanctioning evaluation suggests that factors that enhance or reduce between-perspective differences in causal attribution should similarly enhance or reduce between-perspective differences in sanctioning evaluation.<sup>1</sup>

-----  
<sup>1</sup> Alternatively, the normative analysis of sanctioning evaluation suggests that an actor may be credited-blamed and rewarded-punished for a behavior even though the behavior is not attributed to personal characteristics (Harvey & Rule,



Furthermore, factors that enhance or reduce within-perspective differences in causal attribution should lead to parallel within-perspective differences in sanctioning evaluation.

Three factors were manipulated that are known to affect actors' and observers' attributions for task performance and that were considered relevant to the causal attribution-sanctioning evaluation link. These three factors are causal ambiguity, the public vs. private nature of the evaluation context, and the positive vs. negative valence of the outcome. By manipulating causal ambiguity, an assessment was made of whether perspective differences in causal attribution and sanctioning evaluation reflected actors' and observers' divergent perceptions of external influences on the actor's performance. By varying the public vs. private nature of the evaluation context, an assessment could be made of the extent to which self-presentational concerns contributed to within- and between-perspective differences in causal attribution and

-----  
<sup>1</sup>(cont'd)1978; Kelley, 1971). From this viewpoint, actor-observer evaluation differences would be attributable more to perspective differences in the norms applied to behavior than they would be attributable to perspective differences in the perceived causes of behavior. However, a substantial body of literature indicates that the salient norms of evaluation often emphasize the perceived causes of behavior (cf. Weiner & Peter, 1973; Weiner et al., 1978). Despite the normative analysis of sanctioning evaluation, therefore, it is a worthwhile enterprise to determine if actor-observer sanctioning evaluation differences parallel actor-observer attribution differences.





sanctioning evaluation. Finally, by manipulating outcome valence, the generality of within- and between-perspective differences in attribution and evaluation could be determined.

The literature relevant to the present dissertation is reviewed in further sections of this chapter. In the first section, an attempt is made to specify how actors' attributions may be affected by differences in causal ambiguity and in the nature of the evaluation context. The impact of these latter two factors on sanctioning evaluation is then specified. In the second section, the evidence relevant to observer attribution and sanctioning evaluation is presented. This evidence is related to how observers' causal attributions might be reflected in their sanctioning evaluations. Then, in the third section, the evidence relevant to within-perspective differences is considered in terms of its implications for between-perspective differences in causal attribution and sanctioning evaluation. Finally, a review is given of the procedures and predictions for the two major experiments and the replication experiment conducted for the dissertation.





## Review of the Literature

### Actors

*Attribution-evaluation link.* It has been hypothesized that actors are motivationally-biased in their perceptions of the causes of their behavior (cf. Bradley, 1978; Zuckerman, 1979). The tendency to make higher personal than situational attributions for positive outcomes and lower personal than situational attributions for negative outcomes has been viewed as a self-serving bias (Miller & Ross, 1975; Ross, Bierbauer, & Polly, 1974). That is, actors are presumably motivated to make attributions that put them in the most favorable light as a means of protecting or enhancing their self-esteem.

The existence of self-serving attributional biases presumably results in a bias to evaluate one's behavior positively, i.e., in a bias to accept *credit* for positive outcomes, but to deny *blame* for negative outcomes (e.g., Arkin, Gleason, & Johnston, 1976; Snyder, Stephan, & Rosenfield, 1976, 1978; Stephan, 1975). However, evidence supporting self-serving *evaluational* biases stems from research that has assessed primarily the extent to which actors offer personal or situational *attributions* for positive and negative outcomes.<sup>2</sup>

-----

<sup>2</sup> A study by Harvey, Harris, and Barnes (1975) is an exception to this statement. In this study, actors and observers made attributions of responsibility for an actor's behavior that resulted in either mild or severe negative



Thus, the assumption that high personal attributions lead to the acceptance of credit or blame, whereas high situational attributions lead to the denial of credit or blame has never been directly tested in this literature. Harvey and Rule (1978) recently demonstrated, moreover, that causal attribution is not isomorphic with judgments of responsibility in the form of judgments of credit-blame. Actors who were perceived to have accidentally caused a negative outcome were blamed more than actors who were perceived to have intentionally caused a negative outcome. Harvey and Rule's findings raise questions about the necessary dependence between judgments of causality and perceptions of credit-blame and deservingness. One purpose of the present two studies was to assess whether causal attribution is correlated with actors' ascriptions of credit-blame and perceptions of deservingness.

Evidence based on an equity formulation (e.g., Adams, 1965; Walster, Berscheid, & Walster, 1973) suggests that actors' causal attributions may be directly linked to their perceptions of deservingness. For example, actors work

-----  
<sup>2</sup>(cont'd)outcomes for another individual. They found that actors reduced their ascriptions of responsibility when the outcome was severe relative to mild, whereas observers increased their ascriptions of responsibility when the outcome was severe relative to mild. However, as noted by Harvey and Rule (1978), it is unclear whether measures of responsibility attribution reflect perceptions of causality and/or perceptions of culpability. In order to assess adequately the attribution-sanctioning link it is therefore necessary to at least attempt to measure independently both types of judgment.



harder on a subsequent task if they perceive that their personal inputs on a prior task do not merit the payment received (e.g., Leventhal & Michaels, 1969). Actors presumably exert greater later effort to reduce the "inequity distress" created by high payment for low personal task inputs. While this evidence suggests that there is a link between actors' causal attributions and sanctioning evaluations, there is an interesting disparity between research on self-attribution and research on how causal attributions for task performance affects actors' perceptions of reward deservingness. Specifically, the self-attribution research suggests that actors should reward themselves on a self-serving basis. However, research that has more directly assessed actors' perceptions of reward deservingness has not found the self-serving tendency. Instead, it has been found that actors usually allocate rewards to themselves and others in an equitable manner, i.e., in a manner that is compatible with manipulations designed to affect actors' perceptions of their own relative to others' personal task inputs, even though this might lead actors to accept little reward (e.g., Leventhal & Michaels, 1969). Thus while evidence in the equity area affirms the link between the attributions and evaluations of actors, it nevertheless raises questions about whether self-serving evaluational biases are as pervasive as self-serving attributional biases.





*Causal ambiguity.* One of the many interesting differences between equity-based research paradigms and those yielding support for self-serving attributional biases is the specificity with which information about possible causal influences on the actor's performance is presented. In the equity-related research relatively low causal ambiguity is typically maintained. That is, actors are given information that should affect perceptions of their personal inputs to a task. For example, actors have been given information that they worked for a shorter or longer period than their co-actor, when both actors produced either the same amount or quality of output (e.g., Leventhal & Michaels, 1969). This information should affect their perception of their own ability and/or effort relative to the ability and effort of co-actors on the same task. These causal perceptions should in turn affect their allocations of self- and other-reward. In the self-attribution research, on the other hand, conditions of high causal ambiguity seem most conducive to finding a self-serving tendency (cf. Snyder et al., 1978). That is, actors manifest stronger tendencies to attribute positive outcomes to themselves, but negative outcomes to the environment, when potential causal forces on their performance are not specified (e.g., Snyder et al., 1976). Self-serving attributional tendencies are reduced when relevant causal information is less ambiguous, e.g., when conditions suggest





that good performance was to be expected or that bad performance was unexpected (e.g., Arkin et al., 1976; Feather & Simon, 1971; Frieze & Weiner, 1971; Harvey, Arkin, Gleason, & Johnston, 1974).

While there are many other differences between equity-based and self-attribution based research paradigms, evidence in the self-attribution area suggests that conditions of high causal ambiguity may facilitate self-serving evaluational biases just as they facilitate self-serving attributional biases. However, self-serving evaluational biases may be reduced when causally-relevant information is made explicit and this information is not consistent with the self-serving tendency. A second purpose of the present studies was to assess whether self-serving biases in perceptions of reward deservingness and credit-blame occurred primarily under conditions of high causal ambiguity.

*Self-presentational concerns.* Equity-based and self-attribution research paradigms also differ in terms of the extent to which self-presentational concerns may affect actors' responses in the situation. Relatively public conditions are maintained in equity-based research paradigms; these conditions are engaged by the nature of the dependent measures collected. For example, actors are asked to divide a fixed amount of money between themselves and other co-actors (e.g., Leventhal & Michaels, 1969). Since



participants are to receive these tangible rewards, actors may assume that other participants and/or at least the experimenter will be aware of their reward-allocation decisions. The relatively public nature of the evaluation context may thus arouse concerns with impression management, e.g., gaining the approval or avoiding the disapproval of others (Goffman, 1959). Within the context of this type of paradigm, therefore, concerns with impression management may lead actors to assign reward in accordance with the available causal information. At the same time, however, actors may privately disregard the manipulated causes of task performance unless the provided information is compatible with the attributions or evaluations they desire to make. Similarly, when no explicit causal information is available, actors may assign reward to themselves on a more conservative basis when these evaluations are to be made public rather than to be kept private. That is, actors may accept less reward for a positive or a negative outcome within public relative to private conditions.

The relative publicity of responses in the self-attribution research is less easy to discern. It is often unclear from information about procedures whether participants believe either that their responses are anonymous or that they will be singled out for evaluation. However, as noted by Gifford Weary Bradley (1978), and partly affirmed by research, self-serving attributional



tendencies are reduced when actors believe either that others will evaluate their responses or that their future performance could contradict their attributions.<sup>3</sup> Actors make more modest attributions for their performance or reduce their assessments of their own ability, either when they expect to share their attributional interpretations with others (e.g., Arkin, Appelman, & Burger, 1980, Study 1; Gould, Brounstein, & Sigall, 1977; Wells, Petty, Harkins, Kagehiro, & Harvey, 1977), or when they expect to perform a similar task in the future (e.g., Wortman, Costanzo, & Witt, 1973). This evidence suggests that the self-serving attributional tendency is a relatively private phenomenon that is less likely to be manifested within conditions that arouse concerns with impression management.

Evaluation context differences between the equity and self-attribution research suggests that self-serving evaluational assessments may occur primarily when the evaluation context is relatively private, i.e., when others will not see and evaluate the actor's responses. A third purpose of the dissertation was to assess the validity of this idea.

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<sup>3</sup> Gifford Weary Bradley (1978) also suggested that self-serving tendencies may occur under relatively public conditions. This expectation was based on the idea that others may approve of personal attributions for positive outcomes and situational attributions for negative outcomes.





## Observers

*Attribution-evaluation link.* A considerable body of evidence in the equity literature attests to the significance of attribution as a determinant of observers' perceptions of actors' reward deservingness (e.g. Eswara, 1971; Evans & Molinari, 1970; Kaplan & Swant, 1973; Lanzetta & Hannah, 1969; Leventhal & Michaels, 1971; Leventhal & Whiteside, 1973; Weiner, 1973; Weiner & Kukla, 1970). For example, observers in the role of teachers reward their pupils (actors) more when pupils exert high rather than low effort on a task. Furthermore, high effort is rewarded more than high ability, and low effort is punished more than low ability (e.g., Weiner & Kukla, 1970). This evidence indicates that observers' perceptions of reward deservingness are predicated upon the causes to which they attribute actors' performance. This evidence further indicates that observers rely more on the internal controllable factor of effort than on the internal uncontrollable factor of ability in their perceptions of deservingness. Thus, there seems to be a strong link between the attribution and evaluation processes of observers.

*Causal ambiguity.* The equity-based research fails to indicate, however, how observers will evaluate actors when the available causal information is not as explicit as it has been in this research. In many settings, observers do





not receive explicit information about internal causes of actors' performance. Rather, it is more likely that they receive information about the contribution of external factors to the actor's performance. This then presumably alters their perception of the extent to which personal causes are necessary to explain satisfactorily the outcome (Kelley, 1972; Wells, 1980). When external factors do not account completely for the outcome, observers are still faced with the decision of whether ability and/or effort should be cited as causes. The decision reached by observers should then affect the extent to which they credit-blame and reward-punish the actor for positive/negative outcomes. Another purpose of the present two studies was to determine, therefore, how observers' attributions and evaluations were affected by conditions of high and low causal ambiguity.

Observers' attributions for success and failure under conditions of high causal ambiguity are difficult to predict confidently; this, of course, presents difficulties in predicting observers' sanctioning evaluations. Some research indicates that observers attribute success more than failure to personal factors (cf. Frieze, 1976). This evidence suggests that observers enter the situation with the causal presuppositions that positive outcomes are due to personal factors and that negative outcomes are due to situational factors (Kelley & Michela, 1980). This evidence



further suggests that observers' evaluations of actors will be generous, i.e., that observers will credit actors highly for positive outcomes, but not blame actors highly for negative outcomes. However, the tasks used in this area of research are limited in two respects. First, primarily role-play paper-and-pencil paradigms have been employed, in which observers are asked to imagine that an "actor" has succeeded or failed. It may be very difficult for observers to role-play the role of an observer; that is, they may assume the role of the actor and hence empathize with the actor. Second, the tasks employed are of a primarily intrapersonal nature (e.g., passing/failing a test), in which the actor's behavior and the outcome have implications primarily for the actor (cf. Frieze, 1976). Other research has involved observers more by having them witness a "live" actor who performs a more interpersonal task (e.g., helping another person). In this research, observers are not consistently benevolent toward actors. For example, observers tend to offer higher personal than situational attributions for negative relative to positive outcomes (e.g., Snyder et al., 1976; Stephan, 1975; Wells et al., 1977).

Because an interpersonal paradigm was employed in the present research, it was thought that observers may be somewhat less generous toward actors under conditions of high causal ambiguity. Observers may thus blame actors for



negative outcomes either as much as or more than they credit actors for positive outcomes. Furthermore, Kelley's (1972, 1973) analysis of causal schemata and his discounting and augmentation principles suggest that observers' personal and situational attributions for success and failure should be related to their perceptions of external causes of task performance (e.g., task difficulty), which will be reflected in their sanctioning evaluations. This suggestion is based on the idea that high task difficulty is an external facilitory cause of failure, but an inhibitory cause of success; whereas, low task difficulty is an external facilitory cause of success, but an inhibitory cause of failure. For example, an observer who perceives the task to be easy should offer higher personal than situational attributions for failure and higher situational than personal attributions for success. If attribution is reflected in observers' sanctioning evaluations, observers should thus blame actors more for failure than they credit actors for success.

At the same time, however, the magnitude of the difference between observers' ascriptions of credit for success and ascriptions of blame for failure is difficult to predict confidently. According to past research on observers' perceptions of reward deservingness (cf. Weiner et al., 1978), the magnitude of the difference between ascriptions of credit-blame should depend upon whether





observers offer ability and/or effort attributions for positive and negative outcomes. Unfortunately, no research bears on whether observers are likely to make high effort and/or high ability attributions under conditions of high causal ambiguity.

Kelley's (1972) discounting and augmentation principles have been applied more confidently to the attributions made by observers under conditions of low causal ambiguity (e.g., Fontaine, 1975; Frieze & Weiner, 1971). A considerable amount of research has assessed how uninvolved observers' attributions are affected by factors that should rationally alter the attributions made (cf. Weiner, 1973; Frieze, 1976). On the whole, this research indicates that observers rationally adjust their attributions according to the presented causally-relevant information. A high personal attribution is more likely to occur when an actor succeeds on an explicitly difficult task than when an actor succeeds on an explicitly easy task. Similarly, high personal attributions for failure are more likely when an actor fails an easy task rather than fails a difficult task (cf. Frieze, 1976). Again, assuming that observers' attributions are related to their sanctioning evaluations, judgments of credit-blame and assignments of reward should align with their attributions in each of the causally unambiguous conditions. Furthermore, assuming that effort relative to ability attributions better predict observers' sanctioning





evaluations (Weiner et al., 1978), it will be interesting to determine how observers' more specific attributional assessments are affected by high and low task difficulty information. It should be emphasized, however, that observers in the present experiment may not make as rational adjustments as would be predicted by the foregoing data base. The reason for this was specified earlier, i.e., observers may evaluate actors more harshly when the task is of an interpersonal nature.

*Self-presentational concerns.* Very little research has assessed directly and unambiguously how changes in the nature of the evaluation context affect the attributions made by observers. Furthermore, the existing research suggests that changes in the evaluation context may induce different types of concerns on the part of observers, which then result in different patterns of attribution.

According to Zajonc' (1954,1960) analysis of cognitive tuning, an observer will be more motivated to develop or present a well-unified and organized impression of another when the observer expects to communicate this impression to someone than when the observer does not expect to transmit his/her impression. This motivation may stem from a variety of concerns, e.g., the desire to be accurate or to appear knowledgeable. Expected communication and no expected communication are referred to as transmission and reception sets, respectively. Research on cognitive tuning has shown



that expectant transmitters are less receptive to information contradictory with their own impressions, develop more unified and polarized<sup>4</sup> impressions, and make more extreme attributions than expectant receivers (Brock & Fromkin, 1968; Cohen, 1961; Harkins, Harvey, Keithly, & Rich, 1977; Harvey, Harkins, & Kagehiro, 1976; Leventhal, 1962; Mazis, 1973; Zajonc, 1954, 1960).

Zajonc' distinction between transmission and reception sets may bear on how the public vs. private nature of the evaluation context affects the attributions reported by observers. In this respect, it is being assumed that a transmission set is more operative in what is being called a public condition, i.e., a condition in which the observer expects to communicate his/her attributions to others. It is also being assumed that a private condition is more likely to engage processes compatible with those induced by reception sets, because the observer does not expect to transmit his/her impression to other individuals. According to this analysis, the directional relationship between observers' personal and situational attributions will not change as a function of the public vs. private nature of the evaluation context. For example, if the observer privately believes that a greater personal than situational attribution should be made for the actor's behavior, a

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<sup>4</sup> By polarized, it is meant that the subject tends to use the extreme points on a response scale.



similar attributional pattern should be found in a public condition. However, the magnitude of the difference between the two scale responses may be greater in the public relative to the private condition.

Although the cognitive tuning analysis implies greater attributional polarization in public relative to private conditions, the *type* of attribution(s) that will be made is difficult to predict confidently. Harvey and his colleagues (Harkin et al., 1977; Harvey et al., 1976) tried to minimize this problem by suggesting that a transmission relative to a reception set leads the observer to make more extreme attributions to plausible causal factors in the situation. Unfortunately, under conditions of high causal ambiguity, plausibility is difficult to specify operationally. Plausibility could mean the attributions the observer expects the target discussant to make. Alternatively, plausibility could mean the attributions the observer would "naturally" make independently of changes in the nature of the evaluation context. However, according to this extension of Zajonc' analysis, observers' attributions and evaluations should be more extreme in the public relative to the private condition.

The prediction based on the cognitive tuning analysis conflicts with Wells et al.'s (1977) suggestion and findings that anticipated discussion leads to more moderate attributions on the part of observers. Wells et al.'s





moderation hypothesis was based on the idea that observers desire to adopt a defensible position when they expect to discuss their evaluations with others. This occurs because observers presumably desire to appear unbiased in their assessments of the actor's performance. To do this, observers offer mixed personal and situational attributions.

To test their moderation hypothesis, Wells et al. forced perceivers to treat personal and situational causes as interdependent by asking them to distribute 100 points between descriptions depicting personal and situational causal alternatives. They then calculated an index consisting of the difference between the degree to which personal and situational factors were cited as causes. Their results supported the moderation hypothesis. Observers were more likely to cite equally personal and situational causal factors in the anticipated discussion condition. In the no anticipated discussion condition, observers emphasized personal factors more than situational factors for negative outcomes and situational factors more than personal factors for positive outcomes .

The personal-situational attribution index used by Wells et al. unfortunately obscures the various response strategies that could have been used by observers, and it assumes implicitly that personal and situational attributions are highly negatively correlated. Given two different scales, for example, observers may have exercised





the options of either attributing the actor's behavior to both personal and situational factors or to neither of these two factors. Because research evidence suggests that personal and situational attributions are not necessarily negatively correlated (e.g., Solomon, 1978; Taylor & Koivumaki, 1976), it is difficult to interpret Wells et al.'s results. Furthermore, Wells et al.'s public or anticipated discussion condition was unclear as to whether observers thought they would be responsible for expressing their impressions to others or listening to another co-observer's own impressions. Wells et al.'s anticipated discussion condition may have been somewhat comparable to Harvey and his colleagues' reception set condition; in which case the results of the two studies do not conflict.

The present review indicates that observers may be affected in a variety of different ways by the public vs. private nature of the evaluation context. The cognitive tuning analysis suggests that observers will make extreme attributions in the public condition, but that the direction of their attributions made in public will not change when these evaluations are solicited in private (Harkins et al., 1977; Harvey et al., 1976). Alternatively, Wells et al.'s (1977) analysis suggests that observers will make personal and situational attributions of the same magnitude in the public condition, but that observers in the private condition may offer higher personal than situational



attributions for negative outcomes and lower personal than situational attributions for positive outcomes. In order to assess the conflicting predictions made in this area, the present two studies included separate measures of personal and situational attribution. Then, assuming that the two scales were negatively correlated, a personal-situational attribution index could be constructed to assess whether observers' attributions became more moderate or more extreme under public conditions. Furthermore, since these conflicting attributional tendencies apparently exist, attempts were made to determine whether concerns for accuracy, cautiousness, or modesty were differentially affected by the public vs. private nature of the evaluation context.

### Actors vs. Observers

Most of the emphasis has been placed thus far on what factors lead to within-perspective differences in causal attribution and on the implications of this research for within-perspective differences in sanctioning evaluation. The factor affecting self-attribution has been viewed as primarily motivational. That is, actors have been characterized as making attributions that put them in the most favorable light either to protect or enhance their private self-esteem or to gain the approval/avoid the disapproval of others. The factors affecting observers' attributions have been viewed as both motivational and



informational in nature. Observers have been characterized as making similar assumptions to those made by actors about the causes of success and failure (Kelley & Michela, 1980). Observers have also been shown to offer attributions that take into account the manipulated causes of success and failure (cf. Frieze, 1976). In this respect, observers process the available causal information in a manner that is compatible with rational models of the attribution process (Kelley, 1967; Weiner et al., 1972). At the same time, however, other aspects of the situation--such as its interpersonal nature--may undermine observers' tendencies to take into account the manipulated causes of success or failure. For example, even though an observer may be told that the task was difficult, (s)he may harshly evaluate an actor who fails to help another individual or (s)he may not credit an actor who succeeds in helping another.

A joint consideration of current findings relevant to actors' and observers' attributions suggests that actors and observers may differ in the attributions made not only for positive but especially for negative outcomes. These differences are most likely to occur under conditions of high causal ambiguity. The attributional egotism literature suggests that, under conditions of high causal ambiguity, actors are more likely to offer higher personal than situational attributions for positive outcomes, but higher situational than personal attributions for negative





outcomes. Research on observer attribution is more inconclusive. For example, observers sometimes also offer higher personal than situational attributions for positive than negative outcomes. At other times, they manifest the opposite tendency. Both of these tendencies occur under conditions of high causal ambiguity, however, the former tendency is more prevalent when the task is of an intrapersonal nature (cf. Frieze, 1976; Wells et al., 1977). When external constraints on the actor's performance are more explicit, however, actors' and observers' attributions may begin to converge. The convergence hypothesis is based on evidence showing that actors manifest less attributional egotism when other evidence can contradict their attributions and that observers rationally weigh externally provided information when it is given to them. These suggestions were examined in both studies conducted for the dissertation. In addition, an attempt was made to determine whether these convergence and divergence tendencies were manifested on judgments related to sanctioning evaluation.

The public vs. private nature of the evaluation context was also expected to modify the extent of attributional divergence on the part of actors and observers. Because actors may be more likely to manifest egotism under private conditions and because observers seem more likely to respond harshly toward actors under private conditions, it was





expected that the greatest actor-observer attribution divergence would be found in the private condition.

Furthermore, assuming that attribution predicts evaluation, the greatest actor-observer evaluation divergence should be found in the private condition.

### **Summary and Overview of the Research**

Both studies examined the relationship between causal attribution and sanctioning evaluation from a correlational and an experimental vantage point. Both experiments included measures of causal attribution and sanctioning (i.e., ascriptions of credit-blame and perceptions of reward deservingness). Both experiments also included either indirect or direct manipulations designed to affect the extent to which an actor's task performance was attributed to personal characteristics or to characteristics of the situation. These manipulations were expected to affect evaluative appraisals of actors' performance in a manner suggested by current perspectives on the link between causal attribution and sanctioning evaluation (cf. Kelley, 1971; Weiner & Peter, 1973). Both experiments employed the client-therapist paradigm (e.g., Harvey et al., 1974), in which participants-as-actors deliver a set of desensitization instructions to a presumed "client" who has some type of phobia, while participants-as-observers watch the actor-therapist deliver the instructions. Feedback is then given about how much the actor succeeded in relaxing



the client.

The first experiment was designed to assess whether the client-therapist paradigm was an appropriate setting within which to examine perspective differences in causal attribution and sanctioning evaluation and to determine whether the public vs. private nature of the evaluation context affected within- and between-perspective differences in attribution and evaluation. There were two reasons for assessing the effects of evaluation context on evaluation and attribution. First, any future analysis of attributional conflict must take into account whether, and how, demands of the social situation affect either actors' or observers' willingness to express their privately held beliefs. It could be the case, for example, that actors' and observers' publicly expressed attributions differ little, even though their privately believed attributions differ considerably (e.g., Wells et al., 1977). This raises the important question of how attributional conflict is resolved. Second, it is important to understand whether the attributions and evaluations expressed by actors actually reflect their private concerns with self-esteem maintenance or reflect more of a concern with managing the impressions formed of the actor by others.

To answer these questions, uninvolved observers watched actors perform the role of a therapist. Actors received feedback that the client was feeling much more tense by the



end of the counselling session. To maintain those conditions most conducive to self-serving biases in attribution, no information was given to guide or direct participants' attributions for the actor's failure. Participants were then led to believe either that their performance evaluations would be discussed with a group of knowledgeable others (public) or that these evaluations would remain completely anonymous (private). Participants then summarized their perceptions of what caused the actor's performance and indicated how much the actor deserved to be rewarded and credited-blamed for his/her performance. To control for the possible artifact of forcing a strong relationship between measures of causal attribution and sanctioning evaluation, these measures were collected in two different orders. In addition, exploratory measures were collected of how long participants took to answer the questions.

On the basis of the attributional egotism research (Snyder et al., 1978) and the self-presentational literature (e.g., Bradley, 1978), it was predicted that actors would be more likely to offer self-serving assessments of their failure in the private relative to the public condition. This would be reflected in higher situational than personal attributions for failure in the private than in the public condition. Assuming that sanctioning evaluation is affected by attribution, actors should also make lower judgments of





blame and perceive themselves to be more deserving of reward in the private relative to the public condition. Confident predictions regarding observers' attributions are more difficult to offer. On the basis of Wells et al.'s (1977) moderation hypothesis, it may be predicted that observers should offer mixed (i.e., moderate) personal and situational attributions in the public relative to the private condition. On the basis of the cognitive tuning analysis, it can be predicted that observers will make more extreme attributions in the public relative to the private condition.

Since it is difficult to predict how observers' attributions will be affected by changes in the nature of the evaluation context, it is difficult to predict how actors' and observers' judgments will differ as a function of changes in evaluation context. However, the existing evidence suggests that actors' and observers' personal attributions may diverge the most under private conditions. This is based on evidence suggesting that actors will make high situational and low personal attributions under private conditions (cf. Weary, 1980), but that observers will make higher personal than situational attributions (Wells et al., 1977) or less extreme personal and situational attributions under similar conditions (Harkins et al., 1977; Harvey et al., 1976).





An attempt was made in Experiment 2 to examine the conditions that enhance and reduce perspective differences in causal attribution and sanctioning evaluation for both success and failure. The major question guiding this study was whether actor-observer attribution and evaluation differences could be reduced or enhanced by providing information that should reduce or increase personal attributions to the actor. To assess whether attributional conflict might be traced to divergent perceptions of constraints on the actor's performance, the attributions made by both perceivers under information and no information conditions were also compared.

To address these questions, the client-therapist paradigm was again used, but actors received feedback that the client felt either much more relaxed or much more tense by the end of the counselling session. Participants were then either given or not given information designed to affect their perceptions of whether good or poor performance was to be expected and, hence, designed to affect the extent to which performance was attributed to the actor or to the situation. Specifically, some participants were told that either 15% or 85% of past students had succeeded in relaxing their respective clients, meaning that the counselling task, on the whole, was either difficult or easy. High task difficulty information should lead to high personal attributions for success, but low personal attributions for



failure. Conversely, low task difficulty information should lead to low personal attributions for success, and high personal attributions for failure. In addition, other participants were not given any information regarding task difficulty; hence, in this condition, relevant causal information was absent. Participants then evaluated the actor's performance on measures of causal attribution and sanctioning evaluation. The order in which participants' answered the causal attribution and sanctioning evaluation questions was again counterbalanced, but these evaluations were collected within a public condition only.

It was expected that actors' and observers' attributions and evaluations would diverge the least under conditions of low causal ambiguity, i.e., in those conditions where participants had been told either that 15% or that 85% of past participants had succeeded. Conversely, it was expected that actors' and observers' judgments would diverge the most under conditions of high causal ambiguity, i.e., in the condition where no task difficulty information was provided. Finally, it was thought that the actor-observer divergence would be the greatest when the outcome was a failure rather than a success, since past research seems to indicate that the actor-observer difference is more reliable with negative than with positive outcomes (see Zuckerman, 1979). These tendencies would be reflected in a significant three-way interaction among



perceiver role, task difficulty, and outcome. Again, assuming that sanctioning evaluation is affected by causal attribution, a similar three-way interaction was expected on judgments of credit-blame and perceptions of reward deservingness.

Pilot work and a replication experiment were also conducted. In addition to working out the procedure, the pilot study assessed whether the public vs. private nature of the evaluation context significantly affected perceiver's concerns with accuracy. The replication experiment assessed the extent to which actors' and observers' own causal attributions and sanctioning evaluations corresponded with their estimates of either the expected discussants' (i.e., the psychologists/supervisors') or their counterpart's judgments.

Finally, the response order manipulation was included in the two major experiments, because past research has not been careful to minimize the effects of prior attribution questioning on responses to subsequent dependent measures. Thus, it is unclear whether a significant relationship between causal attribution and other judgments has been artifactually forced in past research. Some evidence (e.g., Enzle & Schopflocher, 1978) suggests that manipulations designed to affect causal attribution do not always affect other responses in the manner predicted by current perspectives on the attribution process (e.g., Kelley,



1972). It is therefore necessary to control for the artifactual production of a strong relationship between causal attribution and other types of judgment. This was done in the present research by varying the order in which judgments related to causal attribution and sanctioning evaluation were solicited. It was hoped that response order would not significantly affect the magnitude of the scale responses made. Otherwise, questions can be raised about the necessary link between causal attribution and other types of judgment; in this case, sanctioning evaluation.





## CHAPTER II

### Experiment 1

#### Method

#### Subjects and Design

One hundred and ten introductory psychology students (58 males, 52 females) participated in the first study in partial fulfillment of course requirements. One like-sex actor-observer dyad was run per session. Each dyad was randomly assigned to one of eight conditions of a  $2 \times 2 \times 2$  mixed factorial design, with Perceiver Role (actor vs. observer) assigned within-sessions and Evaluation Context (public vs. private) and Response Order (causal attribution preceded vs. followed by sanctioning evaluation) assigned between-sessions. The same proportion of males to females was assigned to each condition. Sex of the participants and sex of the confederate (i.e., client) were not crossed in the design, i.e., female participants saw only a female confederate and male participants saw only a male confederate.

#### Procedure

*Counselling phase.* Upon arrival at the laboratory, participants were asked to take a seat in one of two rooms. The room chosen by a participant determined whether or not the participant was assigned to the actor or observer role. There was a television monitor, a 7-key response panel, a variable transformer-controlled "distress-meter", and a set



of headphones in each room. In addition, a microphone and a camera were in the actor's room, so that the observer and experimenter could hear and see the actor during the counselling phase.

Audiotaped instructions were delivered after the experimenter seated participants in their individual rooms. A transcript of these instructions is presented in Appendix A.1. Participants were informed that the study was one in a series of experiments being conducted jointly by the Psychology Department and the University of Alberta Student Counselling Service. Participants were informed that Student Counselling was interested in determining the extent to which nonprofessionally-trained counsellors could administer a set of desensitization instructions to students who had problems with test anxiety. The major question being asked by Student Counselling was whether the same quality of care could be provided by volunteer counsellors who had a minimum of professional training. Participants were told that previous research indicated that volunteer counsellors who had experience with a problem like the client's problem could perform just as well as trained clinicians. This information was given to assure participants that they could succeed on the task, but the ambiguous proviso "who had experience with a problem like the client's problem" was added to minimize initially high anchoring of either personal or situational attributions.



Participants were then informed that, as they could see from the notes on their tables, one of them had been assigned to the role of student counsellor, whereas the other person had been assigned to the role of an observer. It was made clear that this assignment was randomly determined by which room each of them selected when they entered the laboratory. It was explained that both student counsellors and observers were needed in the study to assess different perspectives on the research problem.

Participants were then given some background information about the clients who were participating in the study. They were informed that Student Counselling had referred some of their clients to the study and that all of these clients had problems coping with examination situations. It was emphasized that the client volunteers had been fully informed about the nature of the study. The clients had presumably volunteered to participate because they knew they were going to be helped by students, like themselves, who should be able to relate to being anxious about taking exams.

It was then explained that the client participating in the present session was scheduled to arrive after both participants had been seated in their individual rooms to avoid any potential embarrassment to either participants or the client. When the client arrived, (s)he would be seated in a comfortable chair at a desk in the main part of the





laboratory, at which time the experimenter would place a set of electrodes on two fingers of the client's left hand. The electrodes were presumably connected to an electropolygraph recorder designed to measure muscular relaxation. This measure was described as being a very reliable index of psychological relaxation.

Participants' attention was directed to the meters on their tables. On the face of the meters was a 10-point scale, labelled from 1 (very relaxed) to 10 (very unrelaxed). Participants were told that movement of the needle toward point 1 indicated increasing tension, whereas movement toward point 10 indicated increasing relaxation on the client's part. The instructions emphasized that the counselling session would actually be conducted only if the client's level of muscular relaxation was just about at the middle of the scale at the beginning of the counselling session.

The counselling phase was then briefly described to participants. Participants were told that the student counsellor was going to use a process called guided desensitization. Guided desensitization was described as a process in which the counsellor verbally and gradually guided the client in thinking about aspects of the problem, while helping the client calm down and relax. It was explained that two preliminary tasks had to be completed, however, before the counselling session could be started.





The counsellor first had to complete a test of social sensitivity. This test was described as a measure of the counsellor's ability to relate to people on an interpersonal level. Participants were told that the social perceptiveness test was a very well-validated measure of social sensitivity. They were told that data from this test were required to determine how effective the counselling itself was in relation to the counsellor's natural ability to relate to people.<sup>5</sup> Participants were then informed that the counsellor would also receive an outline of the four most successful desensitization approaches. The actor-counsellor was asked to choose the approach with which (s)he personally felt the most comfortable and the one that (s)he personally felt would be the most effective.<sup>6</sup>

At this time, the experimenter delivered the social sensitivity test and a copy of the available counselling

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<sup>5</sup> The social sensitivity test was administered as one means of increasing actors' involvement on the task (Miller, 1976), by leading them to believe that social sensitivity was a good predictor of performance on the counselling task and that social sensitivity was highly correlated with people's general intelligence. In actuality, participants never received feedback about their performance on this test. A copy of the social perceptiveness test is presented in Appendix A.2.

<sup>6</sup> Actors were given choice among the four ostensibly different types of desensitization approaches to reduce their tendencies to attribute failure to uncontrollable features of the task situation, such as low choice (Arkin et al., 1976). These approaches were labelled: (1) Direct Rational Approach, (2) Indirect Rational Approach, (3) Direct Emotional Approach, and (4) Indirect Emotional Approach. The one sentence description of each approach was written so as to be plausibly consistent with the counselling instructions (See Appendix A.3).



outlines to the actor. The actor's agreement to assume the role of counsellor was solicited at this time. The actor was informed that (s)he had three minutes to complete the test of social sensitivity, after which (s)he was to proceed immediately to looking over and choosing the desired set of desensitization instructions. It was again emphasized at this time that the actor was free to choose the counselling approach with which (s)he felt the most comfortable and felt would be the most effective. Before the experimenter left the room, she directed the actor's attention to the camera located in one corner of the room. The experimenter noted that usually both the client and the observer could view the actor over their monitors but, due to equipment malfunctions, no one would be able to see the actor.<sup>7</sup> The camera was noticeably pointed away from the actor and was camouflaged to appear inoperative. Extra cables were draped over the camera, it appeared unplugged, and a handwritten note was taped to it asking a shop technician to make some repairs. Unknown to the actor, (s)he was in full view over the monitors, through the use of a wide-angle lens.

While the actor completed the social sensitivity test and the available counselling outline, the observer was given copies of both tasks and was informed that the actor had agreed to perform the role of the counsellor. The

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<sup>7</sup> This information was given to reduce anxiety on the actor's part.



observer was told that the counsellor would see the client over his/her monitor, that the client could only hear the counsellor, and that the observer would see and hear both the client and the counsellor over his/her headphones and monitor. It was stressed that the observer was not being watched.

At the end of the 3-minute time period, the experimenter collected the social sensitivity test and, when necessary, waited for the actor to decide which counselling approach to use. Even if the actor failed to inquire about differences among the four approaches, the experimenter always stated that the approaches differed along two dimensions. The experimenter first stated that all of the approaches involved desensitization, which meant that they were designed to bring the client into contact with the problem of test anxiety. The experimenter then stated that the approaches differed in terms of whether they dealt with the problem primarily on an affective dimension (i.e., the client's "gut level" reaction to the problem) or on an intellectual level (i.e., the client's "understanding" of the problem), and in terms of how quickly the instructions brought the client into contact with the problem. The experimenter intentionally made these statements ambiguous to avoid biasing the counsellor toward one approach more than another.





After the actor made his/her decision, the experimenter gave the actor a copy of the "chosen" instructions and explained several aspects of the counselling phase.<sup>8</sup> The experimenter asked the actor to spend the next 10 minutes studying the instructions. The actor was asked first to skim the instructions and then to go over each point and to think very carefully about what each point was communicating. The actor was told to modify any point with which (s)he felt uncomfortable, but to retain the gist of each point. The actor was instructed to then re-read the instructions and to underline those points or parts of those points that (s)he wanted to emphasize or elaborate on relative to other points. The experimenter indicated that she would return within the 10-minute study period to see how (s)he was doing and to answer any questions. The experimenter then gave the observer a copy of the counselling instructions that the counsellor had "chosen"

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<sup>8</sup> The counselling instructions used by the actor and seen by the observer consisted of 10 major points. The instructions began with a general introduction to the effect that the counsellor was going to help the client understand and cope with his/her problem. The client was then asked to relax and was given various imagination techniques to use to relax. The instructions then very quickly brought the client into contact with the problem. A copy of the counselling instructions is presented in Appendix A.4. In addition, regardless of which counselling approach actors thought they were using, they always used the same set of counselling instructions. To maintain participants' beliefs that the actor had in fact received the chosen approach, the name of the counselling approach selected by the actor was typed on the top of the first page of the counselling instructions.





and asked the observer to look them over.

While participants were going over the instructions, the client-confederate arrived and knocked on the main laboratory door. The experimenter brought the confederate into the room, seated him/her at a desk in the main part of the laboratory, and attached a bogus set of electrodes to two fingers on the client's left hand. Neither the actor nor the observer could see nor hear the confederate at this time. The experimenter returned to the actor's room, answered any questions that the actor had, and informed him/her that the counselling phase was almost ready to begin. The experimenter then retrieved from the observer both the outline of the available counselling approaches and the counselling instructions. Before the experimenter left each participant's room, she indicated that careful attention should be paid to the monitor and that the participant should leave on his/her headsets. The experimenter also noted that she would be busy monitoring the physiological apparatus during the counselling phase, so that she would not be able to pay attention to the counselling session.

The experimenter returned to the main part of the laboratory, activated the variable transformer connected to the "distress-meters", and delivered audiotaped summary instructions about the counselling phase. At this time, participants could see the confederate over their



monitors; the observer could also see the actor, although actors were unaware of this. The instructions indicated that the client had been seated in a comfortable chair and was awaiting the counselling phase. During the rest of these instructions, the "distress meter" needle hovered around point 5 on the 10-point scale. Participants were told that the point 5 reading meant that the client was neither completely relaxed nor completely tense at that time. The actor was then asked to prepare to begin the counselling instructions and was reminded to spend no more than one minute on each point of the instructions and to present the entire set of instructions. The actor was reminded to pause for about 10 seconds after each point was made, and to look at the meter to see what effect the counselling was having on the client. The actor was told to ask the client how (s)he felt at the end of the counselling phase, after which the experimenter would dismiss the client from the experiment. It was finally stated that participants would go on to the next experimental phase after the client was dismissed from the experiment. Participants were given no idea at this time of what the next experimental phase involved.

Both client-confederates were trained to appear increasingly more tense over the course of the approximately 10-minute counselling phase. For example, when the instructions stated: "You're walking across campus towards



the building where the examination will be held.", the confederate would frown and take a very deep breath. Both client-confederates also tried to accommodate their nonverbal behavior to the statements made by each actor. For example, the client-confederate took deep breaths every time the instructions emphasized deep breathing. At the same time, the experimenter manipulated the needle on the distress meters using the variable transformer. Over the course of the counselling phase, the needle went from point 5 on the scale down to point 4, and progressively up to between points 7.5 and 8. After the actor finished delivering the counselling instructions, the actor asked the client how (s)he felt. The confederate hesitated and then made a statement to the effect that "I don't feel very good right now. (pause) I guess this didn't help me."

The experimenter terminated the counselling session as soon as possible after the client-confederate had answered the actor's question. Before walking over to the confederate's part of the room, the experimenter switched off the variable transformer. The experimenter then walked over to the confederate and indicated that (s)he was to go down to the counselling center on the second floor, because there was a counsellor down there waiting to talk to him/her.

*Dependent measure phase.* At this time, audiotaped instructions regarding the dependent measure phase were





delivered to participants over their headphones. It was explained that, as they could see over their monitors, the client had been dismissed from the experiment and that at that time they were going to evaluate the counsellor's performance on the counselling task. Due to the videotaped nature of the dependent measure phase, it was explained that several questions would appear on their monitors. It was further explained that the experimenter would read each question aloud and that the participant was to read each question along with the experimenter. Participants were told that each question would appear on their screen for a fixed period of 30 seconds and that, after each question had been read to them, they were to think about how they wanted to answer the question. They were asked to indicate their response to each question by depressing the desired key on their 7-key response panels before the 30 second period elapsed. At no time were participants informed that their response latencies were being measured.<sup>9</sup> Participants were once again reminded that there was no way to correct a mistake on their response panels, so they were to be sure to

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<sup>9</sup> Exploratory measures of response latency were included to determine whether judgments of causal attribution actually facilitated the time required to offer evaluations of the actor's performance. Past research (e.g., Ferguson & Wells, 1980) has indicated that the consideration of information relevant to causal attribution actually speeds up the attribution process. The related question addressed here was whether prior attributional assessments of actors' performance reduced the time required to evaluate actors' performance.



depress only that key that best represented their answers.

Due to the facts that the questions were videotaped and that both actors and observers were being run simultaneously, the questions were always phrased with respect to the student counsellor, rather than personalizing the question for the actor or the observer. To clarify this format to participants, it was explained that those questions specifically referring to the *student counsellor* should be interpreted by the student counsellor as referring to him/her and should be interpreted by the observer as referring to the person who delivered the counselling instructions. It was explained that other questions used the more general reference *you*, and that these questions should be interpreted by the student counsellor as referring to him/her and by the observer as referring to him/her. Participants were once again reminded that they were not to answer a question until the entire question had been read to them and until they were sure of how they wanted to respond. <sup>10</sup>Finally, participants were asked to remember that they were to answer every question.

During the dependent measure phase, participants responded to 13 items designed to assess the effectiveness of the manipulations and to assess their causal attributions

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<sup>10</sup> Very infrequently ( $n = 2$ ) a participant responded before the experimenter finished reading the question. In these rare instances, a participant was assigned the mean response latency for that question for subjects in the same condition.



for, and sanctioning evaluations of, the actor's performance on the counselling task.<sup>11</sup> All of these questions were presented on 7-point scales and, unless otherwise specified, were labelled 1 = not very much and 7 = very much.

Participants' perceptions of actors' choice over which set of counselling instructions could be used was assessed on the item: "How much choice was the student counsellor given over which counselling instructions could be used?" The successfulness of the counselling session was assessed by the question: "Now that the counselling session is over, to what extent do you feel that the outcome of the counselling session was a success?"

Four measures were included to assess the effectiveness of the public vs. private evaluation context manipulation. One item simply tapped participants' memory for the experimenter's statement regarding the discussion of the counselling session with the psychologists-supervisors of the study. This item read: "To what extent did the experimenter indicate that you would be verbally discussing your answers to the evaluation questions with a team of psychologists?" A second item asked: "To what extent did you feel someone would evaluate your interpretation of the student counsellor's performance on the counselling task?" Two additional questions were included to assess the

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<sup>11</sup> For the convenience of the reader, transcripts of these items are presented in Appendix A.5.





possible mediating effects of the nature of the Evaluation Context on participants' answers to the questions. These questions asked how much of a need participants felt to be cautious and modest in their evaluations of the student counsellor's performance on the counselling task, where a higher number reflected more of a need to feel cautious or modest.

Participants were asked to rate the personal and situational causes of the actor's performance on two questions worded: "To what extent was the outcome of the counselling session due to how the student counsellor delivered the counselling instructions?" and "To what extent was the outcome of the counselling session due to circumstances beyond the student counsellor's control?"

Because outcome valence was to be manipulated in Experiment 2, two measures of credit-blame were included in the first study. The first measure of credit-blame to be asked of participants was presented on a bipolar scale and was included within the Response Order manipulation. This item was phrased: "How much do you feel the student counsellor should be credited (if the student counsellor succeeded in relaxing the client) or blamed (if the student counsellor failed in relaxing the client) for the outcome of the counselling session?" (1 = should be credited a lot; 7 = should be blamed a lot). The same question was repeated later, outside of the context of the Response Order





manipulation, but the scale endpoints were labelled 1 = not very much and 7 = very much.

In addition to the two measures of credit-blame, measures of actor responsibility and client responsibility were included. The actor (client) responsibility questions were worded: "How personally responsible do you feel the student counsellor (client) is for the outcome of the counselling session?"

The final response measure of interest was participants' perceptions of how much reward the actor deserved for his/her performance on the counselling task. Perceptions of deservingness were assessed by answers to the following question: "Student Counselling has offered to pay the student counsellor in this session a \$7.50 fee for his/her services. Indicate below the size of the fee which you think the student counsellor deserves for his/her performance on the counselling task. That is, you should reward him/her an amount consistent with how much you think his/her performance was worth." (1 = \$1.50, 7 = \$7.50, in \$1.00 increments).

Questions for the dependent measure phase were typed in orator font and were then videotaped. The experimenter's verbalization of each question was taped on one soundtrack of the videotape. A tone was also recorded on the second soundtrack of the videotape. To minimize the influence of reading time on response latencies, this tone was inserted



immediately after the experimenter finished verbalizing each question. The tone triggered a window discriminator connected to the digital timers, from which response latencies were recorded. Ignoring reading time, each question appeared on participants' monitors for a fixed period of 30 seconds, immediately after which the next question appeared. Depression of a response key stopped the participant's timer and illuminated its corresponding light on a panel from which a confederate or the experimenter then recorded both the participant's response latency and scale response.

*Evaluation context manipulation.* Following the explanation of the dependent measure phase, the experimenter delivered the audiotaped public vs. private evaluation context manipulation. A transcript of these instructions is presented in Appendix A.6. Participants in the *private* condition were told that, consistent with what they had been told in their introductory psychology class, all aspects of their behavior and their interpretation of the counsellor's performance would remain completely anonymous in the experiment. It was explained that neither the experimenter nor the psychologists associated with the study would see their answers to the questions, because their answers were being fed directly into the laboratory computer. To maintain comparability of the private with the public condition, the experimenter stated that the retention of



anonymity was not standard operating procedure in all experiments. They were told that normally the team of psychologists supervising the study would visit each session to evaluate the entire session and the participants in it. It was explained that this procedure was used to facilitate the psychologists' evaluation and that the psychologists normally would talk to each participant individually about the participant's answers to the questions. It was noted that we would not follow this procedure, because of the time constraints involved in running the study. Participants were then told that the experimenter would dismiss each of them separately from the experiment as soon as the evaluation phase had been completed.

Participants in the *public* condition were informed that they were going to discuss their interpretation of the counsellor's performance with a team of psychologists. It was explained that, contrary to what they may have been told in their introductory psychology class, there were some experiments where no aspect of their behavior or their interpretation remained anonymous. The experimenter elaborated on this point by noting that the team of psychologists supervising the study and the experimenter wanted to see their answers to the questions. They were told that the team of psychologists was presently in the





laboratory and was waiting to evaluate the entire session. <sup>12</sup>It was explained that the psychologists would see their answers to the questions over the teletype machine connected to the computer into which their answers were being directed. It was then explained that the psychologists wanted to meet with each participant *individually* (verbal emphasis) so that they could discuss each participant's evaluation. The experimenter then noted that each participant would be dismissed separately from the experiment after the discussion phase.

*Response order manipulation.* The dependent measure phase began immediately after delivery of either the public or private evaluation context manipulation. Participants first responded to one practice question to familiarize them with the presentation and response formats. The practice question was "How much do you feel you have learned about the field of psychology from participating in psychology experiments?" (1 = not very much; 7 = very much).

Immediately following the one practice question, the four questions comprising the response order manipulation were presented. Participants either answered the personal and situational attribution questions first followed by the bipolar measure of credit-blame and the reward assignment

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<sup>12</sup> In the public condition, the experimenter loudly opened and closed doors to the lab and played an audiotape at a loud volume from an unused cubicle. This extraneous noise was designed to lead participants to believe that people, in addition to the experimenter, were in the laboratory suite.



measure (Causal Attribution First condition) or the credit-blame and reward assignment questions appeared first followed by the causal attribution questions (Causal Attribution Last condition). The order of question presentation within each class of judgment (i.e., causal attribution vs. sanctioning evaluation) was counterbalanced across conditions.

Following the dependent measure phase, the experimenter visited each room and probed the participant for demand awareness and suspiciousness. An audiotaped debriefing was then delivered. At the end of the debriefing, participants were brought out into the main part of the laboratory so that the experimenter could ensure that participants completely understood the purpose of the study and the need to use deception. Finally, participants were reminded not to disclose the purpose of the experiment, thanked, and dismissed.



## Results

Seven dyads were eliminated from data analyses due to the suspiciousness expressed by one member of one dyad, the refusal by two actors to participate as counsellors, and the remaining four dyads were removed either because of equipment failures or experimenter error. Unless otherwise specified, univariate analyses of variance were conducted on each dependent measure, treating all but the blocking factor as fixed factors. Actors and observers were functionally yoked with one another. Each observer saw and rated only one actor; each actor performed the counselling task in front of only one observer. Therefore, because actors' and observers' responses could have been affected by the pairing of particular actors with particular observers, the dyad was conceptualized as the most appropriate unit of analysis. To control for the variation due to the pairing of particular actors with particular observers, the design was conceptualized as a randomized block design, in which each actor-observer pair was treated as a block. The appropriate error term for the main effect of Evaluation Context, Response Order, and the 2-way interaction between these factors was Blocks (i.e., pairs) nested within these two factors. The appropriate error term for any source of variation involving Perceiver Role was the interaction between Blocks (nested within Evaluation Context and





Response Order) and Perceiver Role (Edwards, 1968).<sup>13</sup> The analysis of variance summary source tables are presented in Appendix B.<sup>14</sup>

Sex of the triad (actor, observer, confederate) was included as a factor in all of the initial analyses. Significant effects involving Sex are always reported, but no conclusions are based on these effects, because sex of the perceiver and sex of the confederate were experimentally confounded. If effects due to Sex were not significant, this factor was not included in subsequent analyses.<sup>15</sup>

### Manipulation Checks

Participants' concerns with the accuracy of their responses were assessed in a pilot study (n = 24). These participants were asked: "How concerned were you with the

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<sup>13</sup> All of these analyses were conducted using the *ANOVAR* program of the *Statistical Package for the Social Sciences*. To ensure the accuracy of the output, several of the analyses were computed by hand. In addition, another analysis was done to demonstrate that the reported effects were independent of the particular pairs of actors and observers sampled in this study. The data were randomly split into two samples of 24 pairs each. Analyses of variance on the four major dependent measures were then conducted on each group separately. These analyses verified the effects reported herein, even though the degrees of freedom were reduced by half. A similar analysis was conducted on the data of Experiment 2 and revealed similar effects, with the exception of the personal attribution item, where none of the interactions was significant.

<sup>14</sup> The mean values for any effect significant at the .10 level or beyond are presented although conclusions are based only on those effects reaching the conventionally accepted .05 level.

<sup>15</sup> When Sex is included as a factor in the analysis, there are 40 degrees of freedom for the error term. Sex was not included in analyses where it did not yield a significant effect, yielding 44 degrees of freedom for the error term.





accuracy of your answers to all of the questions?" (1 = not very much, 7 = very much). Both actors ( $M = 6.00$  vs.  $5.75$ , respectively) and observers ( $M = 6.75$  vs.  $6.25$ , respectively) were somewhat more concerned with the accuracy of their responses in the private than in the public condition ( $F < 1$ ). However, it can be seen that concern for accuracy was high overall ( $M = 6.19$ ). On this basis, no accuracy concern measure was included in the main experiments.

An analysis of variance conducted on the verbal discussion manipulation check item showed that only the main effect of Evaluation Context was significant,  $F(1,44) = 84.44$ ,  $p < .001$  (See Appendix B.1). Participants in the public condition ( $M = 5.06$ ) indicated more that they would be discussing their answers with the team of psychologists than did participants in the private condition ( $M = 2.04$ ). Only the main effect of Evaluation Context was significant on the measure designed to assess the extent to which participants felt their interpretations would be evaluated,  $F(1,44) = 7.54$ ,  $p < .009$  (See Appendix B.2). Participants felt that they would be evaluated more in the public ( $M = 5.27$ ) than in the private ( $M = 4.33$ ) condition. The main effect of Evaluation Context failed to meet an acceptable level of significance on either the caution,  $F(1,44) = 2.37$ ,  $p < .13$ , or the modesty,  $F(1,44) = 2.05$ ,  $p < .16$ , items; no other effects approached significance on these items,



$F_s(1,44) < 1.40$  (See Appendices B.3 and B.4). Participants in the public relative to the private condition reported feeling only somewhat more cautious ( $M_s = 5.07$  vs.  $4.40$ , respectively) and somewhat more modest ( $M_s = 3.23$  vs.  $2.71$ , respectively).

Participants perceived actors to have moderately high choice ( $M = 4.38$ ) over which set of counselling instructions could be used. No effects reached significance on this item,  $F_s(1,44) < 1$ , indicating that differential perceptions of choice across conditions cannot account for results on the major dependent measures (See Appendix B.5). The public vs. private nature of the evaluation context was not related significantly to which of the four counselling approaches actors chose,  $X^2(3) = 3.91$ ,  $p < .27$ . The most-to-least frequently chosen approaches were: Indirect Rational (41.7%), Indirect Emotional (29.2%), Direct Rational (14.6%), and Direct Emotional (14.5%). Finally, the outcome of the counselling session was perceived as uniformly unsuccessful ( $M = 1.28$ ) by participants across all experimental conditions,  $F_s(1,44) < 2.40$ , indicating that performance feedback was perceived as intended (See Appendix B.6).

### Major Scale Response Dependent Measures

*Causal attributions.* An analysis of variance conducted on the person attribution item revealed only a significant Perceiver Role X Evaluation Context interaction,  $F(1,44) =$



71.71,  $p < .001$  (See Appendix B.7). As seen in Table 1, actors attributed the outcome significantly more to themselves in the private than in the public condition, whereas the opposite tendency was manifested by observers.<sup>16</sup>

An analysis of variance conducted on the situational attribution item revealed only a significant Perceiver Role X Evaluation Context interaction,  $F(1,44) = 46.56$ ,  $p < .001$  (See Appendix B.8). As seen in Table 1, actors made greater situational attributions when their responses were to be made public than when their responses were to be kept private, whereas observers manifested the opposite tendency.

Because the personal and situational attributions made by actors,  $r(44) = -.37$ ,  $p < .009$ , and observers,  $r(44) = -.21$ ,  $p < .16$ , were negatively correlated, a personal-situational attribution index was calculated by taking the difference between scale responses to these two items. The resultant scale range on this index is +6 (highest possible personal attribution; lowest possible situational attribution) to -6 (lowest possible personal attribution; highest possible situational attribution). An analysis of variance conducted on the personal-situational index, revealed a significant main effect of Evaluation Context,  $F(1,44) = 7.14$ ,  $p < .01$ , and a significant

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<sup>16</sup> All post-hoc comparisons employed Duncan's multiple range test, with an alpha level of .05.





Table 1

Mean Personal, Situational, and Personal-Situational  
 Attributions as a Function of Perceiver Role and Evaluation Context  
 (Experiment 1)

Evaluation Context X Item	Perceiver Role	
	Actor	Observer
Public		
Personal Attribution (1)	3.42 <sub>a</sub>	5.75 <sub>b</sub>
Situational Attribution (2)	5.79 <sub>a</sub>	4.18 <sub>b</sub>
Personal-Situational Attribution (1)	-2.38 <sub>a</sub>	1.57 <sub>b</sub>
Private		
Personal Attribution (1)	6.00 <sub>b</sub>	4.17 <sub>a</sub>
Situational Attribution (2)	4.12 <sub>b</sub>	5.17 <sub>a</sub>
Personal-Situational Attribution (1)	1.88 <sub>b</sub>	-1.00 <sub>c</sub>

Note. The higher the mean, the greater the (1) personal attribution or (2) situational attribution. The subscripts refer to post-hoc comparisons made among the means contributing to any one measure, not to comparisons among means across the measures. Means within an item sharing no subscripts in common differ significantly ( $p < .05$ ) by Duncan's multiple range test.



Perceiver Role X Evaluation Context interaction,  $F(1,44) = 113.86$ ,  $p < .001$  (See Appendix B.9). Greater situational than personal attributions were made in the public ( $M = -.41$ ) than in the private ( $M = .44$ ) condition. However, as seen in Table 1, this index bears out the tendency of actors to make greater situational than personal attributions in the public condition, whereas the opposite pattern emerged for actors in the private condition. Observers, on the other hand, tended to make greater personal than situational attributions in the public condition, a tendency that was reversed in the private condition.

As seen by the index scores, observers and especially actors tended to manifest less moderation in the public relative to the private condition. This index obscures, however, the specific items contributing to moderation. That is, although actors "moderated" less in the public condition on the index, this seems to be due to the high situational attributions made by them in this condition. Actors' personal attributions in the public condition deviated little from the scale midpoint. Conversely, their personal attributions were more extreme in the private condition, relative to their situational attributions in this condition, or their personal attributions in the public condition. Observers manifested the opposite tendency. Observers' personal attributions were more extreme in the public relative to the private condition, whereas the



opposite tendency emerged for their situational attributions.

*Sanctioning evaluations.* The mean ratings of sanctioning evaluation partitioned by the significant Perceiver Role X Evaluation Context interactions on each of the items reported in this section are presented in Table 2. An analysis of variance conducted on the bipolar measure of credit-blame revealed a significant Perceiver Role X Evaluation Context interaction,  $F(1,44) = 43.91, p < .001$ . As seen in Table 2, actors accepted less blame for failure when their judgments were to be made public than when their judgments were to be kept private, whereas observers manifested the opposite tendency.

This analysis also revealed a significant 3-way interaction among Perceiver Role, Evaluation Context, and Response Order,  $F(1,44) = 7.92, p < .007$  (See Appendix B.10). As shown in Table 3, the order in which participants made their judgments modified the extent of this relationship, such that for actors and observers the difference between public vs. private conditions was reduced when judgments of blame were solicited after, rather than before, judgments related to causal attribution. For actors, higher judgments of blame occurred in the public/causal attribution first and private/causal attribution last conditions, relative to the remaining two conditions. For observers, on the other hand, higher



Table 2

Mean Assignments of Blame, Actor and Client Responsibility, and Reward  
as a function of Perceiver Role and Evaluation Context

(Experiment 1)

Evaluation Context X Item	Perceiver Role	
	Actor	Observer
Public		
Credit/Blame (bipolar)	3.29 <sub>a</sub>	5.04 <sub>b</sub>
Credit/Blame (unidirectional)	3.17 <sub>a</sub>	5.08 <sub>b</sub>
Actor Responsibility	3.21 <sub>a</sub>	5.39 <sub>b</sub>
Client Responsibility	4.96 <sub>a</sub>	4.33 <sub>b</sub>
Actor-Client Responsibility	-1.75 <sub>a</sub>	1.06 <sub>b</sub>
Reward Assignment	3.63 <sub>a</sub>	2.88 <sub>b</sub>
Private		
Credit/Blame (bipolar)	5.00 <sub>b</sub>	3.71 <sub>a</sub>
Credit/Blame (unidirectional)	4.96 <sub>b</sub>	3.54 <sub>a</sub>
Actor Responsibility	4.67 <sub>b</sub>	3.38 <sub>a</sub>
Client Responsibility	4.00 <sub>b</sub>	5.38 <sub>a</sub>
Actor-Client Responsibility	.67 <sub>b</sub>	-2.00 <sub>a</sub>
Reward Assignment	2.42 <sub>b</sub>	4.00 <sub>a</sub>

Note. The higher the means, the greater the blame or responsibility assigned to the actor, the greater the assigned client responsibility, or the greater the assigned reward. The subscripts refer to post-hoc comparisons made among the means contributing to any one measure, not to comparisons among means across the measures. Means for each measure sharing no subscripts in common differ significantly ( $p < .05$ ) by Duncan's multiple range test.





Table 3

Mean Assignment of Credit/Blame (Bipolar Measure) as a function of  
 Perceiver Role, Evaluation Context, and Response Order  
 (Experiment 1)

Response Order	Perceiver Role X Evaluation Context			
	Actor		Observer	
	Public	Private	Public	Private
Causal Attribution First	3.67 <sub>ab</sub>	4.75 <sub>cd</sub>	4.83 <sub>cd</sub>	4.17 <sub>bc</sub>
Causal Attribution Last	2.92 <sub>a</sub>	5.25 <sub>d</sub>	5.25 <sub>d</sub>	3.25 <sub>a</sub>

Note. The higher the mean, the more blame ascribed to the actor.  
 Means sharing no subscripts in common differ significantly ( $p < .05$ )  
 by Duncan's multiple range test.



judgments of blame occurred in the public/causal attribution last and private/causal attribution first conditions, relative to the remaining two conditions. Post-hoc comparisons made among these means, however, revealed that actors' ascriptions of blame in the public relative to the private condition were not significantly affected by the order in which questions were presented. Only observers' ascriptions of blame in the private condition were significantly increased by asking causal attribution questions first. It can also be seen that actors' and observers' ascriptions of blame did not differ significantly in the private condition, when the causal attribution questions preceded this blame question.

In response to the unidirectional credit-blame item, only a significant Perceiver Role X Evaluation Context interaction was found,  $F(1,44) = 66.02, p < .001$  (See Appendix B.11). The mean ratings of credit-blame on the unidirectional measure are also presented in Table 2. In response to the actor responsibility question, significant 2-way interactions between Perceiver Role and Evaluation Context,  $F(1,44) = 46.41, p < .005$ , and between Response Order and Role,  $F(1,44) = 4.91, p < .03$ , were obtained (See Appendix B.12). Actors attributed more responsibility to themselves when the causal attribution questions followed rather than preceded the sanctioning evaluation questions ( $M_s = 4.25$  vs.  $3.63$ , respectively). Observers manifested



the opposite tendency ( $M_s = 4.13$  vs.  $4.63$ , respectively). However, only the causal attribution first/actor mean ( $M = 3.63$ ) was significantly different from the remaining three means.

In response to the client responsibility question, significant Response Order  $\times$  Evaluation Context,  $F(1,44) = 5.02$ ,  $p < .03$ , and Perceiver Role  $\times$  Evaluation Context,  $F(1,44) = 18.83$ ,  $p < .001$ , interactions were found (See Appendix B.13). Ascriptions of client responsibility were greater in the private than in the public condition when the causal attribution questions were asked first ( $M_s = 5.25$  vs.  $4.75$ , respectively), whereas ascriptions of client responsibility were lower in the private than in the public condition when the causal attribution questions were asked last ( $M_s = 4.13$  vs.  $4.54$ , respectively). However, only the causal attribution last/private mean ( $M = 4.13$ ) was significantly different from the remaining three means.

An analysis of variance conducted on an index of the difference between ascribed client and actor responsibility (+6 = highest actor, lowest client responsibility attribution; -6 = lowest actor, highest client responsibility attribution) revealed a marginally significant Evaluation Context  $\times$  Response Order interaction,  $F(1,44) = 3.94$ ,  $p < .055$ , and a significant Perceiver Role  $\times$  Evaluation Context interaction,  $F(1,44) = 67.64$ ,  $p < .001$  (See Appendix B.14). However, comparisons among the four





means contributing to the Response Order X Evaluation Context interaction revealed that responsibility was attributed significantly more to the client only in the private/causal attribution last condition ( $M = -1.25$ ) relative to the private/causal attribution first ( $M = -.08$ ), public/causal attribution first ( $M = -.54$ ), and public/causal attribution last ( $M = -.17$ ) conditions.

It can be seen in Table 2 that the Perceiver Role X Evaluation Context interactions yielded a consistent pattern of results across the various sanctioning evaluation measures, with actors accepting more personal responsibility in the private relative to the public condition and observers assigning more personal responsibility to the actor and less personal responsibility to the client in the public relative to the private condition.

The final scale response measure to be considered in this section concerns participants' perceptions of how much reward the actor deserved for his/her performance on the counselling task. The analysis of variance conducted on the reward item revealed a significant main effect of Response Order,  $F(1,44) = 9.97$ ,  $p < .003$ , and a significant Perceiver Role X Evaluation Context interaction,  $F(1,44) = 11.71$ ,  $p < .001$  (See Appendix B.15). Less money was awarded the actor when this measure was collected after the causal attribution measures ( $M = 2.81$ ) than prior to the attribution measures ( $M = 3.65$ ). As seen in Table 2, the reward assignment



measure was also sensitive to the same response tendencies manifested on the relatively less concrete measures of credit-blame and responsibility.

### Response Latency and Order Effects

As indicated above, Response Order was not consistently effective in eliciting different scale responses to questions designed to assess participants' perceptions of the causes of the actor's performance or to questions related to sanctioning evaluation. Response Order was expected to have its major impact on the length of time participants took to scale their attribution and achievement evaluation judgments. The analysis of the response latency data revealed significant main effects of Perceiver Role,  $F(1,40) = 6.96, p < .01$ , Type of Question,  $F(3,120) = 27.77, p < .001$ , and significant 2-way interactions between Perceiver Role and Evaluation Context,  $F(1,40) = 5.94, p < .02$ , and Response Order and Type of Question,  $F(3,120) = 5.93, p < .001$  (See Appendix B.16).<sup>17</sup> A description of the Perceiver Role X Evaluation Context interaction is presented in a later section (See Table 5). The Type of Question main effect revealed that the reward assignment measure yielded the shortest overall response latency ( $M = 8.47$ ), the bipolar credit-blame measure the longest overall response

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<sup>17</sup> This analysis also revealed a significant Sex X Response Order X Type of Question interaction,  $F(3,120) = 3.16, p < .03$ . The means for this effect are presented in Appendix C.1.



latency ( $M = 14.77$ ), and the personal ( $M = 11.39$ ) and situational ( $M = 12.92$ ) attribution measures intermediate response latencies. Only the latter two means were not significantly different. An analysis of variance conducted on the average of the two attribution item response latencies vs. the average of the two sanctioning evaluation item response latencies also revealed a significant main effect of Perceiver Role,  $F(1,44) = 6.65$ ,  $p < .04$ , and significant Perceiver Role X Evaluation Context,  $F(1,44) = 5.67$ ,  $p < .05$ , and Question Type X Response Order interactions,  $F(1,44) = 4.76$ ,  $p < .03$  (See Appendix B.17). Table 4 presents the mean response latencies for the Question Type X Response Order interactions on the four separate measures as well as on the average response latencies to the two attribution measures and the two measures related to sanctioning evaluation.

These results most likely reflect the effect of practice on participants' response latencies, although this explanation is weakened somewhat by certain comparisons (e.g., the facts that the longest and shortest response latencies occurred for the credit-blame and reward assignment items, respectively, regardless of response order). Although practice may account for the interaction, it is noteworthy that response latencies to the sanctioning evaluation questions were indeed shorter when they followed rather than preceded the causal attribution questions. The



Table 4  
Mean Response Latencies to Attribution and Sanctioning  
Evaluation Questions as a function of Response Order  
(Experiment 1)

Response Order	Question-Type			
	Personal Attribution	Situational Attribution	Credit/ Blame	Reward Assignment
Causal Attribution First	10.80 <sub>abc</sub> (12.25)	13.70 <sub>cd</sub> (11.00)	13.68 <sub>cd</sub>	8.33 <sub>a</sub>
Causal Attribution Last	11.98 <sub>bc</sub> (11.19)	12.14 <sub>bc</sub> (12.23)	15.85 <sub>d</sub>	8.61 <sub>ab</sub>

Note. The higher the mean, the longer the response latency (in secs). Means within parentheses reflect the average response latency to each judgment class (attribution vs. sanctioning evaluation). Mean response latencies sharing no subscripts in common differ significantly ( $p < .05$ ) by Duncan's multiple range test.





same effect is not as true of the causal attribution questions. Although the effects might have been stronger, these results are at least consistent with the idea that causal attributions facilitate sanctioning-related assessments of a person's behavior. The other noteworthy aspect of these results is the fact that the bipolar measure of credit-blame yielded the longest overall response latencies. This most likely reflects the difficulty participants' had in interpreting this question, an explanation that was supported by the results of Experiment 2 and by participants' complaints about the wording of this item.

Table 5 presents the mean response latencies for the Perceiver Role X Evaluation Context interaction. Although actors responded faster overall ( $M = 10.46$ ) than did observers ( $M = 12.88$ ), it can be seen in Table 5 that this effect was statistically reliable only in the public condition. Interestingly, moreover, actors responded faster to the attribution and sanctioning-related questions within the public relative to the private condition, whereas observers responded faster to these questions within the private relative to the public condition.

### Correlational Analyses

Pearson product moment correlations were computed on the major dependent measures. Correlations were computed among the major dependent measures separately for actors and



Table 5  
 Mean Response Latencies as a Function  
 of Perceiver Role and Evaluation Context  
 (Experiment 1)

Evaluation Context	Perceiver Role	
	Actor	Observer
Public	9.52 <sub>a</sub>	14.18 <sub>b</sub>
Private	11.39 <sub>c</sub>	11.58 <sub>c</sub>

Note. The higher the mean the longer the response latency (in secs). Mean latencies sharing no subscripts in common differ significantly ( $p < .05$ ) by Duncan's multiple range test.



observers, as well as comparing actors' and observers' responses to the major dependent measures. As seen in Table 6, the various measures of causal attribution and sanctioning evaluation were significantly correlated in the expected directions. The client responsibility item yielded the weakest overall relationship to the other measures. As will be seen below, however, actors and observers differentially took into account their perceptions of client responsibility when they evaluated both the causes of the actor's performance and the actor's deservingness of reward.

Table 7 presents the item intercorrelations for actor participants. As seen in Table 7, actors' personal attributions were significantly positively correlated with their assessments of credit-blame and self-responsibility, but not with their assessments of reward assignment or client responsibility. Conversely, actors' situational attributions were negatively correlated with their personal attributions and judgments of credit-blame, and self-responsibility, but were positively correlated with their assignments of reward. Actors' judgments of credit-blame were negatively correlated with their perceptions of deservingness and positively correlated with their ascriptions of self-responsibility. These interrelationships are interesting, as they suggest that there is not a unidirectional predictive relationship among





Table 6  
Principal Intercorrelations  
(Experiment 1)

Variable	1	2	3	4	5	6
1. Personal Attribution	-	-.30*	.40*	-.26*	.45*	-.19
2. Situational Attribution		-	-.48*	.37*	-.51*	.20*
3. Credit/Blame			-	-.43*	.39*	-.35*
4. Reward Assignment				-	-.21*	.45*
5. Actor Responsibility					-	-.14
6. Client Responsibility						-

Note. All correlations are based on  $n = 96$ . All correlations with a superscript (\*) are significant at  $p < .05$  or beyond.



Table 7  
Principal Actor Intercorrelations  
(Experiment 1)

Variable	1	2	3	4	5	6
1. Personal Attribution	-	-.37*	.45*	-.20	.49*	-.05
2. Situational Attribution		-	-.54*	.44*	-.58*	.17
3. Credit/Blame			-	-.43*	.43*	-.23
4. Reward Assignment				-	-.19	.40*
5. Actor Responsibility					-	-.04
6. Client Responsibility						-

Note. All correlations are based on  $n = 48$ . All correlations with a superscript (\*) are significant at  $p < .05$  or beyond.



causal attribution, perceptions of credit-blame, and reward assignment. Actors' assessments of credit-blame corresponded with their perceptions of personal causal responsibility which, in turn, are reflected in their perceptions of reward deservingness. However, perceptions of deservingness for failure seem to be related more to being able to identify situational factors as causes of failure. Perceptions of client responsibility were significantly correlated with only their perceptions of reward deservingness. This further supports the interpretation that actors were reasoning that they deserved more reward the more failure was due to some aspect of the situation.

Table 8 presents the results of the correlational analyses for observers. The observer-based correlations present a similar picture to that portrayed for actors, with two major exceptions. First, observers' perceptions of reward deservingness were significantly negatively correlated with their personal attributions. Secondly, observers' perceptions of client responsibility were more highly related to other judgments of responsibility and causal attribution.

Table 9 presents the intercorrelations among actors' and observers' causal attributions and responsibility assessments. As seen in the main diagonal of Table 9, only two correlations were significant, viz., observers' personal



Table 8  
Principal Observer Intercorrelations  
(Experiment 1)

Variable	1	2	3	4	5	6
1. Personal Attribution	-	-.21	.35*	-.39*	.40*	-.42*
2. Situational Attribution		-	-.41*	.38*	-.45*	.30*
3. Credit/Blame			-	-.46*	.36	-.52*
4. Reward Assignment				-	-.28	.48*
5. Actor Responsibility					-	-.29*
6. Client Responsibility						-

Note. All correlations are based on  $n = 48$ . All correlations with a superscript (\*) are significant at  $p < .05$  or beyond.





Table 9  
Principal Actor-Observer Intercorrelations  
(Experiment 1)

Variable X Actor Responses	Observer Responses					
	1	2	3	4	5	6
1. Personal Attribution	-.35*	.42*	-.47*	.40*	-.47*	.51*
2. Situational Attribution	.52*	-.22	.36*	-.31*	.54*	-.26
3. Credit/Blame	-.35*	.41*	-.24	.28*	-.51*	.43*
4. Reward Assignment	.25	-.02	.25	-.26	.23	-.21
5. Actor Responsibility	-.34*	.22	-.28*	.36*	-.34*	.17
6. Client Responsibility	.07	.05	-.08	-.01	.19	.15

Note. All correlations are based on  $n = 48$ . All correlations with a superscript are significant at  $p < .05$  or beyond. Column items refer to observer responses; row items refer to actor responses.



attributions were negatively correlated with actors' personal attributions as were actors' and observers' ascriptions of actor responsibility.

### Replication Experiment

The results of Experiment 1 did not confirm completely the original expectations regarding the effects of evaluation context on either actors' or observers' attributions and sanctioning evaluations. It was expected that actors would not desire to appear too self-aggrandizing in the public condition where it was clear that others would see and evaluate their responses. This expectation was based on the idea that the self-serving attributional tendency would be viewed by actors as self-aggrandizing and that actors would try to avoid eliciting the disapproval of evaluating others. It was thus predicted that actors in the public condition would offer either higher personal than situational attributions for their failure or that they would at least offer equal personal and situational attributions. These attributional tendencies were also expected to occur on judgments of blame and perceptions of reward deservingness. As seen from the results of Experiment 1, actors did not manifest the expected response tendencies. In fact, actors manifested the opposite tendency. Furthermore, actors were not differentially influenced by modesty, accuracy, or caution concerns in the public and private conditions, indicating that neither



anticipated publicity nor evaluation apprehension affected actors in the expected manner.

Several different possibilities were examined for observers. Observers, in the public condition, did not respond in a manner completely consistent with expectations based on any of the previous research concerned with how observers would be affected by changes in the nature of the evaluation context. It appears as if the public condition did not engage concerns for accuracy, modesty, or caution, at least as measured in the first experiment. Observers in the public condition responded in a manner that is most compatible with previous characterizations of how actors' and observers' attributions differ (cf. Jones & Nisbett, 1972; Monson & Snyder, 1977). The attributions of observers in the private condition were more moderate than the attributions of observers in the public condition, a result that was incompatible with Wells et al.'s (1977) analysis of moderation.

Because the attributional and evaluational assessments offered by actors and observers could not be explained in terms of concerns with accuracy, modesty, or caution, a follow-up experiment was conducted to determine whether participants' responses reflected other concerns not assessed in the first experiment. After examining the results of Experiment 1, it was thought that perhaps participants in the public condition were trying to mimic





how they thought other people (e.g., their co-participant or the psychologists-supervisors) in the situation would evaluate the actor-counsellor's performance. No measures were collected in Experiment 1 to assess these possibilities. Therefore, a replication experiment was conducted in which participants were asked to estimate the expectations, and attributions of, other people in the situation.

### **Subjects, Design, and Procedure**

Twenty-eight (14 males, 14 females) introductory psychology students were randomly assigned to one of four conditions of a 2 (actor, observer) X 2 (public vs. private evaluation context) mixed factorial design. Perceiver Role was again assigned within-sessions and Evaluation Context was assigned between-sessions.

The procedure was identical to that employed in Experiment 1, with a few exceptions. Rather than presenting questions on videotape, they were presented in a questionnaire format. This format was used because some of the questions had to be phrased differently for actors and observers. The evaluation context manipulation had to be modified to accommodate the revised dependent measure collection procedure. Participants were given similar instructions to those detailed in Experiment 1, however, participants in the public condition knew that the psychologists-supervisors would not see their answers until



the end of the evaluation phase. Participants in the public condition were asked to put their name and phone numbers on the cover page of the questionnaire, whereas participants in the private condition were asked not to identify themselves in any way on the questionnaire and they were given an envelope in which to seal their completed questionnaires.

## Results

### Causal Attribution

*Self-attributions.* Participants were asked to summarize their perceptions of the causes of the actor's performance on 7-point personal and situational causal attribution scales identical to those employed in Experiment 1. The analysis of variance conducted on the person attribution item revealed only a significant Perceiver Role X Evaluation Context interaction,  $F(1,12) = 27.42$ ,  $p < .001$ ,  $MSe = 1.10$ . As in Experiment 1, actors made greater personal attributions in the private relative to the public condition ( $Ms = 5.57$  vs.  $3.29$ , respectively), whereas observers manifested the opposite tendency ( $Ms = 4.29$  vs.  $6.14$ , respectively). An analysis of variance conducted on the situational attribution item, however, revealed no significant effects,  $F_s(1,12) < 2.50$ ,  $MSe = 3.66$ . The failure to find a significant Perceiver Role X Evaluation Context interaction on this item most assuredly reflects the lower power of this statistical test ( $n = 28$ ) relative to the power of the test employed in Experiment 1 ( $n = 110$ ).



It should also be noted that the direction of participants' situational attributions in the replication experiment were consistent with the situational attributions made by participants in Experiment 1. Specifically, actors made higher situational attributions in the public than in the private condition ( $M_s = 5.00$  vs.  $3.98$ , respectively), whereas the opposite tendency was manifested by observers ( $M_s = 3.86$  vs.  $5.14$ , respectively).

*Projected attributions.* Actors and observers were also asked to estimate the attributions that they thought the psychologists-supervisors would make for the actors' performance on the counselling task. Actors' (observers') estimates of the supervisors' personal attributions were assessed on the items: "To what extent do you feel that the *psychologists-supervisors* of the study believe that the outcome of the counselling session was due to how you (the student counsellor) delivered the counselling instructions?" (1 = not very much, 7 = very much). Actors' (observers') estimates of the supervisors' situational attributions were assessed on the items: "To what extent do you feel that the *psychologists-supervisors* of the study believe that the outcome of the counselling session was due to circumstances beyond your (the student counsellor's) control?" (1 = not very much, 7 = very much). No significant effects were obtained in the analyses of variance conducted on either the personal,  $F_s < 1.05$ , or the situational attribution items,





$F_s < 1.14$ . Overall, participants' estimated that the psychologists-supervisors would make higher personal ( $M = 5.14$ ) than situational ( $M = 4.50$ ) attributions .

Participants were also asked to estimate the personal and situational attributions made by the co-participant in the study. Actors' (observers') estimates of their co-participant's personal attributions were assessed on the items: "To what extent do you feel the *observer* (*student counsellor*) believes that the outcome of the counselling session was due to something about how you (the student counsellor) delivered the counselling instructions?" (1 = not very much, 7 = very much) and "To what extent do you feel the *observer* (*student counsellor*) believes that the outcome of the counselling session was due to circumstances beyond your (the student counsellor's) control?" (1 = not very much, 7 = very much). An analysis of variance conducted on participants' personal attribution projections revealed a significant Perceiver Role X Evaluation Context interaction,  $F(1,12) = 6.54$ ,  $p < .03$ ,  $MSe = 2.64$ . Actors estimated that observers would make higher personal attributions in the private relative to the public condition ( $M_s = 5.29$  vs.  $4.29$ , respectively). Observers estimated that actors would make lower personal attributions in the private relative to the public condition ( $M_s = 3.72$  vs.  $5.86$ , respectively). An analysis of variance conducted on participants' situational attribution projections also





revealed a significant Perceiver Role X Evaluation Context interaction,  $F(1,12) = 14.12$ ,  $p < .003$ ,  $MSe = 1.01$ . Actors estimated that observers would make lower situational attributions in the private relative to the public condition ( $M_s = 3.15$  vs.  $5.37$ , respectively). Observers estimated that actors would make higher situational attributions in the private relative to the public condition ( $M_s = 5.43$  vs.  $4.57$ , respectively).

### Difficulty and Expectancy

No measure of perceived task difficulty was included in Experiment 1. In order to compare the results of Experiment 1 with Experiment 2, a measure of perceived task difficulty was included in the replication experiment. To assess whether participants' perceptions of difficulty paralleled their attributional responses, they were asked the following question: "To what extent do you feel the counselling task is a difficult task for student counsellors to perform well on?" (1 = not very much, 7 = very much). The analysis of variance conducted on this item revealed a significant Perceiver Role X Evaluation Context interaction,  $F(1,12) = 22.98$ ,  $p < .001$ ,  $MSe = .821$ . Actors perceived the task to be significantly more difficult in the public relative to the private condition ( $M_s = 5.31$  vs.  $3.72$ , respectively), whereas observers perceived the task as less difficult in the public relative to the private condition ( $M_s = 4.14$  vs.  $5.86$ , respectively). Perceptions of task difficulty thus



paralleled the attributions made by participants in the replication experiment and in Experiment 1.

Participants were also asked to judge how good a chance student counsellors had to perform well on the counselling task on the item worded: "To what extent do *you* feel that student counsellors, in general, have a good chance of relaxing their respective clients in this study?" (1 = not very much, 7 = very much). No effects were significant on this item,  $F_s(1,12) < 2.78$ . Overall, participants perceived that student counsellors had only a moderate chance of succeeding ( $M = 3.61$ ).

Finally, participants were asked to estimate the psychologists-supervisors' expectations of success on the item: "To what extent do you feel that the *psychologists-supervisors* of the study expect student counsellors, in general, to have a good chance of relaxing their clients in this study?" (1 = not very much, 7 = very much). The analysis of variance conducted on this item revealed a significant interaction between Perceiver Role and Evaluation Context,  $F(1,12) = 13.37$ ,  $p < .001$ ,  $MSe = .964$ . Actors' estimates of the supervisors' expectancies were higher in the private relative to the public condition ( $M_s = 5.00$  vs.  $3.28$ , respectively). Observers' estimates of the supervisors' expectancies were lower in the private relative to the public condition ( $M_s = 3.57$  vs.  $4.29$ , respectively).



## Discussion

The first purpose of Experiment 1 was to assess whether causal attributions were significantly related to sanctioning evaluation, as suggested by current perspectives on the link between these two types of judgment. Correlational analyses verified the strength of this relationship. Personal attributions were positively correlated with assignments of actor responsibility and ascriptions of blame; situational attributions were negatively correlated with these measures of sanctioning evaluation. While it may be suggested that all of the measures were being interpreted in causal terms, this explanation is weakened by the face-value differences in the wording of the attribution and evaluation items as well as by the failure to find consistent effects of response order on the magnitude of participants' scale responses.

The only measure less strongly associated overall with the attributional and evaluational items was the measure of client responsibility. The latter finding is understandable, however, given the focus of the measures on the actor and the fact that the situational attribution measure did not single out the client as a plausible external cause of the actor's failure. Nevertheless, it would be interesting to determine if it was something about the "client" being affected by the actor's behavior that yielded this weak result. Because the outcome had





implications for the client's well-being, it could be that perceivers were not very willing to implicate the client as a plausible external cause of the actor's failure. This suggests that the interpersonal vs. intrapersonal nature of the outcome in question may modify somewhat the link between causal attribution and evaluation, a suggestion that has not been investigated.

The second purpose of Experiment 1 was to assess whether the relationship between sanctioning evaluation and causal attribution was similar for actors and observers. Although the relationship was similar on the whole, there was one noteworthy exception. Actors' self-attributions and self-responsibility ascriptions were not significantly correlated with their ascriptions of client responsibility. However, their perceptions of reward deservingness were significantly positively correlated with their ascriptions of client responsibility. Although these are difficult effects to interpret, it may be that actors perceived themselves to be more deserving the greater the obstacle they had to overcome, regardless of whether they were successful in overcoming it. Actors may have based their assessments of client responsibility on the extent to which they perceived the client to have a problem coping with test anxiety. They may have reasoned that the greater the client's problem, the poorer their chances of success, regardless of their own ability or effort. At the same





time, actors' actual effort may have increased linearly with their perceptions of the magnitude of the client's problem. This, in turn, may have led to greater perceptions of reward deservingness.

For observers the client was a much more observably salient factor in their attributional and evaluational assessments, especially in the private condition. Although observers were not uniformly benevolent toward actors, they tended to base their decisions on the other person involved in the interaction. The actor-observer difference in this respect suggests that involved relative to uninvolved perceivers may experience more difficulty in psychologically separating their input from others' inputs to an outcome, even for failure. This is an intuitively appealing observation, that was borne out in the replication experiment and that is supported by previous research (e.g., Ross & Sicoly, 1979).

Furthermore, the relationship between actors' and observers' attributional and evaluational assessments were generally negative, although few of these correlations were significant. Only actors' and observers' personal attributions and their ascriptions of actor responsibility were significantly negatively intercorrelated. These results suggest that attributional conflict may be easier to resolve if attention is focused more on the environment than on the actor as an agent of responsibility. Recent data by



Passer, Kelley, and Michela (1978) bears on this observation. They found that partners in an interpersonal relationship were in marked disagreement regarding internal causes of an actor's negative behavior. Their attributions converged more when factors related to the actor's behavior and its implications for the actor's attitude toward the partner were considered. In addition, actors and observers may achieve a more stable relationship should they focus on how the environment may or may not have *justified* a particular behavior than on personal characteristics of the actor that may not be modifiable or that the actor may not wish to modify (e.g., Scott & Lyman, 1968).

The third purpose of Experiment 1 was to assess whether actors' and observers' attributions and evaluations were influenced by the public vs. private nature of the evaluation context. The results indicated an unexpected turn of events, especially for actors. It was expected that actors would offer more modest or counterdefensive attributions for, and evaluations of, their poor performance in the public relative to the private condition. This expectation was based on the idea that actors would perceive the psychologists/supervisors to be at least disapproving of attributions consistent with the 'self-serving' stance; consequently, modesty was viewed as the best policy. The attributions and evaluations made by actors in the private condition were expected to reveal more of a self-serving



tendency. This was based on the idea that actors would not have to defend their attributional interpretations nor would anyone contradict their attributions. Neither of these expectations was supported by the present results. Actors offered higher personal than situational attributions for their failure in the private condition, whereas the opposite tendency was manifested by them in the public condition. Their ascriptions of both credit-blame and perceptions of reward deservingness corresponded with their attributional responses in the public and private condition.

While surprising from the above viewpoint, the present results are understandable in light of similar results found in another area of research. Evidence from the literature on self- and interpersonal-evaluation (cf. Jones, 1973; Shrauger, 1975) has demonstrated that people describe themselves more positively when they have failed and believe that others will see their self-evaluations, whereas the opposite tendency occurs when others will not see their self-descriptions (e.g., Archibald & Cohen, 1971; Baron, 1974; Dion & Miller, 1973; Jones & Pines, 1968; Schlenker, 1975; Schneider, 1969; Worchel, Lind, & Kaufman, 1975). These effects are obtained independently of whether the expected discussants are co-participants, the experimenter, or an "expert" associated with the experiment (e.g., Dion & Miller, 1973; Schneider, 1969). Positive self-descriptions under public conditions are reduced only when participants





expect to perform a similar task in the future and when participants expect their future performance outcomes to be made public (e.g., Jones & Pines, 1968; Schlenker, 1975).

No clear mechanism has been specified in this literature for why people who experience failure describe themselves more positively in public than in private conditions. In line with Weary's (1980) analysis of self-attribution, it has been suggested that the public nature of the evaluation context arouses concerns with gaining the approval of others (e.g., Dittes, 1959; Schneider, 1969). Participants who fail can presumably gain the approval of others by describing themselves more positively. Although no precise mechanisms have been specified or examined, it might be suggested that concerns with self-esteem enhancement or maintenance are actually *aroused more* in public than in private conditions. While the person may risk embarrassment or social censure by presenting the self in too unrealistically positive a fashion, this risk may seem too great only if more objective means of assessment (e.g., future testing) are available that may later contradict the person's evaluations or attributions. A person who fails a task that (s)he does not expect to repeat may feel that there is nothing to lose and potentially something to gain by not adopting the strategy of self-effacement. After all, (s)he may elicit the sympathy of others; furthermore, even if sympathy is not



elicited, (s)he is not likely to be criticized extremely for trying to gain the approval of others. This strategy may have been adopted by actors in the present study, in which the psychologists-supervisors of the study were associated with Student Counselling. By virtue of this association, the psychologists may have been viewed as highly sympathetic and noncritical. In this regard, it is interesting to note that Arkin et al. (1980) recently reported some evidence in an immediate evaluation condition consistent with a self-serving biases interpretation. Evidence for a self-serving attributional tendency was found only when the target discussants were PhD students in clinical psychology (Study 2), but not when the target discussants were three members of a campus-wide committee of psychologists (Study 1). While these two groups differ on an expertness dimension, they also probably differ on an empathy dimension; that is, it could be that the students were viewed as more sympathetic or empathic than the psychologists.

It is also interesting to note that the denial of causal responsibility, in the public condition, occurred more on the situational than on the personal attribution measure. That is, actors' situational attributions deviated more from the scale midpoint than did their personal attributions. These results suggest that actors were not being too bald in their refusal to accept responsibility for



the outcome. It is as though they were more moderate (Wells et al., 1977) on the person attribution item in order to give themselves more degrees of freedom to move upwards or downwards in their later discussion with the psychologists-supervisors.

These results indicate that the motivational bases of self-attribution should be considered in greater detail. In particular, we need to specify the conditions that arouse concerns with self-esteem enhancement, protection, or maintenance. The present results suggest that self-esteem concerns are likely to be engaged in the presence of others. This suggestion is compatible with Snyder et al.'s (1978) view that attributional egotism may occur when the actor perceives that a personal attribution for failure is "eminently makeable or apt to be made by others" (p. 95).

The present results are also compatible with research on social facilitation, in which it has been found that the actual or implied presence of evaluating others facilitates the emission of responses that are most dominant in the actor's response hierarchy (see Simmel, Hoppe, & Milton, 1968; Zajonc, 1965). According to social facilitation theory, the presence of others is arousing and arousal activates the most dominant (i.e., most probable) response tendencies of the individual. Assuming that different response tendencies are engaged simultaneously, there is competition as to which of these is most likely to occur.





The response actually emitted is presumed to be the *most* dominant one. In a related vein, a variety of different goals are thought to guide the attribution process (Kelley & Michela, 1980). The goals underlying the attribution process appear to be those of a more rational nature (e.g., the desire to predict and control; the desire to be accurate) relative to a less rational nature (e.g., the desire to appear modest or to protect/enhance self-esteem). Which of these goals predominates is assumed to affect the course and outcome of the attribution process (e.g., Berscheid, Graziano, Monson, & Dermer, 1976). However, investigators interested in attribution have yet to specify clearly when less, relative to more, rational goals guide the attribution process. These specifications notwithstanding, it seems reasonable to suggest that the perceiver may be motivated by less rational concerns under conditions conducive to high arousal. This may be what happened in the public condition of the present experiment, where concerns with self-esteem maintenance or protection may have predominated. Actors offered attributions consistent with prior operational definitions of the self-serving tendency and, in accordance with social facilitation theory, they actually responded faster in the public than in the private condition.

Jones (1973) has also discussed self-esteem concerns as a predominating force in self- and interpersonal-evaluation.





Desires to be accurate, internally consistent, or to protect/enhance self-esteem have been juxtaposed with one another in this research. And, as noted earlier, the apparent motive to protect/enhance self-esteem invariably dominates people's self-descriptions, unless future performance is anticipated. From the research on social facilitation, self- and interpersonal-evaluation, and self-attribution, it appears as though the desire to protect/enhance self-esteem is dominant in the person's response hierarchy. There are conditions that exacerbate this tendency but, at the same time, other conditions (e.g., future performance diagnosticity) may undermine this tendency.

Actors' shifts toward less defensive attribution in the private condition are also understandable from the above viewpoints. In this condition actors should not have been concerned with being evaluated by others nor should they have been afraid that others would see their answers to the questions. Therefore, concerns with self-esteem protection or impression management were probably minimized in this condition. Actors could thus afford to be honest with themselves or strive toward accuracy. The relevant question now is why actors would have offered greater personal than situational attributions for their failure. A re-examination of the instructions and cover story given to participants suggests one reason why actors may have done



so. Specifically, participants were told that previous research had investigated the idea that nonprofessionally trained counsellors could successfully counsel clients. They were told that this research indicated that counsellors, who had experience with a problem like the client's problem, could perform just as well as trained clinicians. They were then later told that students, like the actor and the observer, should be able to relate to being anxious about exams. This information may have induced a positive outcome expectancy in participants, which actors willingly took into account in the private condition. Actors simply are not as self-deceiving as we have presumed them to be, an observation that makes sense in light of tomes of other research that does not find self-serving attributional tendencies (cf. Abramson et al., 1978; Weiner et al., 1978).

The above interpretations of actors' response strategies are entirely post-hoc and deserve future investigation. Less worthy of future attention are explanations that center on how evaluation context affects concerns with modesty and cautiousness, because there were no significant effects of evaluation context on participants' responses to these items. Pilot data in fact revealed that actors were somewhat more concerned with response accuracy in the private relative to the public condition. In the main experiment, evaluation context did



not affect significantly actors' felt need to be cautious or modest. Participants expressed only a moderate need to be cautious ( $M = 4.74$ ) and felt a minimal need to be modest ( $M = 2.97$ ). Thus, concerns with accuracy or response defensibility do not explain satisfactorily the attributional and evaluational differences produced by changes in the nature of the evaluation context.

The effects of the public relative to the private nature of the evaluation context may reflect, however, actors' concerns with matching the expectations of the psychologists-supervisors. Although data from the replication experiment revealed that actors' estimates of the psychologists' attributions were not affected significantly by evaluation context, actors' estimates of how well the psychologists expected student counsellors to perform the task were affected significantly by evaluation context. These estimated expectations were lower in the public relative to the private condition and corresponded well with actors' own expectations. Of course, it is impossible to determine whether actors' estimates of the psychologists' expectations influenced actors' own estimates and attributions or vice versa. Future research should assess these possibilities by conjointly manipulating self- and other-expectations and examining their influence on self-attribution and evaluation.





The relationship between actors' self-attributions and estimates of the observers' attributions validates the earlier noted observations regarding actors' inability to take the perspective of the other. Actors' estimates of observers' attributions in the public and private conditions were similar to their own attributions. These data suggest that actors may be attributing too much empathic ability to observers and/or that actors are too involved in their own perspective to assume the other's perspective. These data support Stephan's (1975) finding that actors' projections of observers' attributions were inaccurate. They resemble the centration tendency found in young children who are asked to morally evaluate another child's transgressive behavior (Piaget 1930/1965). Actors seem to be approaching their estimates more from the point of view of Jones and Thibaut's (1958) value-maintenance set, in which the egotistic concerns of the perceiver override their ability to evaluate dispassionately the situation. These findings do not bode well for the resolution of interpersonal conflict at the attributional level and suggest that someone outside of a relationship may often be needed to first clarify where the conflict resides. This need can be seen in many real-life situations (e.g., marriage counsellors, labor-management arbitrators, and department chairpersons).

Observers' attributional and evaluational responses were also affected by the public vs. private nature of the



evaluation context. Again, however, their responses were not entirely consistent with any of the findings reviewed in the introduction section of this dissertation. Although observers offered more extreme personal attributions in the public relative to the private condition, the opposite was true of their situational attributions. Overall, these response patterns resulted in a somewhat more extreme response tendency on the part of observers in the public condition. While these results may be construed as support for Zajonc' (1954/1960) analysis of cognitive tuning, the support was not very solid and attempts should be made to replicate these findings using other indices of polarization. Furthermore, extreme degrees of polarization may not have been found because observers were not given the "transmission" set until after they had viewed the behavior to be explained (see Harkins et al., 1977).

On the basis of Wells et al.'s (1977) findings, it was suggested that observers might manifest a moderation strategy in the public relative to the private condition. Very little support was found for this suggestion. The only item yielding effects consistent with the moderation strategy was the client responsibility item. It should be noted that observers' felt needs to be more cautious or modest in the public than in the private condition was not confirmed statistically.



The replication experiment provided a means of examining other explanations of why observers were less benevolent toward actors in the public relative to the private condition. Observers' estimates of the psychologists' performance expectations corresponded quite well with their own personal and situational attributions for failure in the two evaluation context conditions. As noted earlier, part of the cover story may have induced a positive outcome expectancy in participants and, in the public condition, observers may have felt compelled to align their own attributions and evaluations with this expectancy, because the psychologists-supervisors most likely expected counsellors to succeed. The fact that this correspondence existed in both evaluation context conditions undermines somewhat the interpretation that observers altered their attributions in the public condition to match their expectations regarding what the psychologists wanted observers to say. Rather, these data suggest that observers projected their own beliefs to the psychologists. Again, however, these data are only suggestive of the latter tendency. In future research, both sources' attributions and expectations will have to be manipulated as a means of determining the direction of the effects.

The possibility that observers were attempting to second guess the actor's responses was also investigated in the replication experiment. This was considered a likely





possibility in the public condition, because observers knew that both perceivers would be discussing their interpretations with the psychologists. It was thought that observers, who had not performed the counselling task, might perceive actors to have a better basis for giving an interpretation. Hence, observers may have desired to give an interpretation compatible with that given by actors.

Observers' estimates of actors' attributions provided some interesting data in this respect. Observers actually projected to the actor personal and situational attributions compatible with the original predictions made for actors by the present author. Observers predicted the self-serving attributional tendency in the private condition, but a modesty tendency in the public condition. Apart from the implications of these data for observers' response strategies, they are an interesting commentary on scientists-as-observers. They suggest that psychologists may be incapable of modelling accurately self-attribution from the point of view of the self (Ross, 1977). The present author certainly did not predict accurately actors' response strategies as a function of the public vs. private nature of the evaluation context.

A confident account cannot be given of why observers manifested their respective response strategies in the public and private conditions. Perhaps, because observers thought actors would respond modestly in public, they





mimicked this pattern. This may have occurred, not because of observer modesty, but because of concerns with expressing a consensual opinion to the psychologists. Why observers may have mimicked their actor estimates in the private condition is more anomalous. Albeit speculative, it could be that observers anticipated interacting with actors in the future and desired to appear empathic. The item measuring participants expectations of being evaluated showed that participants expected to be evaluated even in the private condition ( $M = 4.33$ ). It could be that they expected to be evaluated more by the actor than by people more closely associated with the experiment. Anticipated discussion with the actor could also account for observers' response strategies in the public condition. Future research might investigate these possibilities or at least be sure to minimize this type of concern, perhaps by having participants arrive at different laboratories and by better assuring participants that they will not interact.

The failure to find the traditional actor-observer attribution difference in the private condition, but confirmation of this difference in the public condition also prompts several observations. First, it raises questions about how attributional conflict is ever resolved. It is almost as if participants are unwilling to admit the very private beliefs that may result in an efficient resolution of attributional conflict. Of course, future research will



have to investigate this possibility, by varying whether or not actors and observers openly communicate their beliefs to one another. These data also raise questions about the generalizability of past actor-observer research findings. They suggest that attempts should be made in future research to minimize the artifactual effect of evaluation context on participants' responses. However, as noted by McGuire (1969), one researcher's artifact lays the foundation for another researcher's grant proposal. And, it is clear from the present findings that more research is needed on how self-presentational concerns affect the attributions expressed. Researchers have only begun to address questions regarding whether "self-serving" attributional tendencies actually fulfill the need to protect or enhance self-esteem (e.g., Miller, 1978). At the same time, however, this research has not addressed whether concerns for self-esteem are engaged independently by factors like task importance (Miller, 1976) and the nature of the evaluation context, or whether these factors share some common element that engages concerns with self-esteem protection or enhancement. In this respect, it would seem fruitful to adopt the approach taken by Jones (1964) in his seminal work on ingratiation, where participants were given various instructional sets designed to determine when and how ingratiation was manifested.



Finally, a major question addressed in both experiments was why equity-based research evidence relative to attribution-based research evidence seemed to depict a less motivationally-biased actor. One suggestion was that the paradigms employed differ in terms of the degree to which causal ambiguity is high or low. A second suggestion was that equity-based relative to attribution-based research paradigms may differentially engage concerns with impression management. Impression management concerns were expected to affect the extent to which actors evaluated themselves in a self-serving manner. The second suggestion was assessed in Experiment 1 by varying the public vs. private nature of the evaluation context while maintaining conditions of high causal ambiguity. The results of this experiment failed to support the idea that actors may manifest response tendencies under public conditions that were less compatible with a self-serving biases interpretation. These results challenge the interpretation that self-presentation concerns are engaged differentially in the equity-based vs. the attribution-based research paradigms. The failure to find support for this interpretation is difficult to explain. For example, conditions of high causal ambiguity may have undermined actors' concerns with impression management. Actors may have been more concerned in the public condition about the responses given during the dependent measure phase had they been given an idea of what the discussants'





believed about the causes of their failure and/or their reward deservingness. Future research might assess this idea by varying the nature of the evaluation context, the degree of causal ambiguity present, as well as the presence vs. absence of co-acting others.

While the results of Experiment 1 were inconclusive regarding why and how self-presentational concerns affect evaluative processes, they indicated that the client-therapist paradigm was a suitable one within which to assess a related issue. As stated in the introduction, equity-based vs. attribution-based research paradigms also differ in terms of the extent to which participants receive information that should affect the attributions offered. Low causal ambiguity is typically maintained in the equity-based research procedures. That is, actors and/or observers are given information that should affect the attributional conclusions reached. In the attribution research, on the other hand, conditions of high causal ambiguity seem most facilitative of self-serving attributions on the part of actors and more biased attributions on the part of observers. The purpose of Experiment 2 was to examine the extent to which conditions of low causal ambiguity reduced within- and between-perspective differences in causal attribution and sanctioning evaluation. Consistent with the implications of the equity-based research, it was expected that conditions



of low causal ambiguity would reduce between-perspective differences in causal attribution and sanctioning evaluations and would reduce actors' tendencies to make "self-serving" attributions and evaluations. Alternatively, conditions of high causal ambiguity should be those most conducive to detecting between-perspective differences in attribution and sanctioning evaluations as well as self-serving tendencies on the part of actors. Attention is now given to these issues.



## CHAPTER III

### Experiment 2

#### Method

##### Subjects and Design

Two hundred and twelve introductory psychology students (108 female, 104 male) participated in the study in partial fulfillment of course requirements. One like-sex actor-observer dyad was run per session. The within-sessions factor of Perceiver Role (actor, observer), and between-sessions factors of Outcome (success, failure), Task Difficulty (high, low, no information), and Response Order (causal attribution preceded vs. followed by sanctioning evaluation questions) were combined in a  $2 \times 2 \times 3 \times 2$  mixed factorial design. The same proportion of males and females was assigned to each condition. As in the first study, sex of the participant matched the sex of the confederate.

##### Procedure

The procedure was identical to that employed in Experiment 1 with the following exceptions. To reduce having to feign the presence of the psychologists-supervisors, a slight modification of the public evaluation context condition was included. After the experimenter dismissed the client from the experiment, the experimenter informed participants that they would proceed to the evaluation phase and that the



psychologists-supervisors of the study would be there soon to evaluate the entire session and the participants in it. In Study 1, participants had been told that the psychologists-supervisors were already in the lab waiting to discuss the counselling phase. A copy of the revised public evaluation context instructions is reproduced in Appendix D.1.

Unless otherwise specified, the dependent measure questions were identical to those employed in Experiment 1. However, in addition to the global measures of personal and situational attribution, specific assessments of the extent to which performance was attributed to ability, effort, and task difficulty were included. The Response Order manipulation was also identical to that employed in Study 1. However, participants were informed that their response latencies were being recorded and that, although they should respond as quickly as they could, they were also to respond with as much certainty as they felt they could have in their answer to each question. Both of these changes were made to reduce within-subject variability.

*Outcome manipulation.* Participants were led to believe that the counsellor either succeeded or failed in relaxing the client. The needle on the meter hovered around point 5 at the beginning of the counselling phase and moved progressively upward toward points 7.5 or 8 (failure) or progressively down toward points 2.5 or 2 (success) by the





end of the counselling session. At the end of the counselling session, the client stated either "I don't feel too good right now. (pause) I guess this didn't help me" (failure) or "I feel pretty good right now. (pause) I guess this helped me." (success).

*Task difficulty manipulation.* In two conditions, participants were informed about past students' success rates on the counselling task. This information was conveyed after the counselling session had been completed, but before the dependent measure phase. The experimenter noted that the client had been dismissed and that, as they could tell from their meters and from what the client said, the client was feeling pretty relaxed (success) or pretty tense (failure) by the end of the counselling phase. In the two information given conditions, the experimenter went on to state that, of the 200 and more students who had been in the study, either (a) 85% of them actually succeeded in relaxing their respective clients, meaning that the counselling task on the whole was a pretty easy task for most students to perform well on, or (b) only 15% of them actually succeeded in relaxing their respective clients, meaning that the counselling task on the whole was a pretty difficult task for most students to perform well on. In the no information condition, the experimenter simply noted how the client was feeling, as indicated by the client's statement and the meter reading, and then explained the



dependent measure phase. A transcript of these statements is presented in Appendix D.2.

## Results

The data from 10 dyads were excluded from analyses due to suspiciousness expressed by at least one member of three dyads (1 male, 2 female), the failure of two males and one female to understand the dependent measure instructions, the refusal of two females and one male to act as counsellors, and the discovery that one female actor was a professional yoga instructor. The reported analyses always included the two between-sessions factors of Outcome (success, failure) and Task Difficulty (high, low, no information) and the within-sessions factor of Perceiver Role (actor, observer). As in Experiment 1, the actor-observer pair was treated as a blocking factor.

The Response Order factor was of primary concern with respect to the response latencies and scale responses to the items contained within this manipulation (i.e., personal attribution, situational attribution, bipolar credit-blame and reward assignment measures). Response Order was included, however, in all of the initial analyses due to the fact that effects of Response Order were found on the scale response data of Study 1. If Response Order did not significantly affect participants' responses to an item, it was not included as a factor in the reported analyses. Sex of the triad was also included as a factor in the initial



analyses of all dependent measures. Effects of sex are always noted when they were obtained; otherwise, Sex was not included as a factor in the reported analyses. The analysis of variance summary source tables for the reported analyses are presented in Appendix E. <sup>18</sup>

### Manipulation Checks

An analysis of variance conducted on the item tapping participants' perceptions of outcome successfulness revealed a significant main effect of Outcome,  $F(1,90) = 1094.62$ ,  $p < .001$ , a significant Task Difficulty X Perceiver Role interaction,  $F(2,90) = 4.51$ ,  $p < .01$ , and a significant 3-way interaction among Task Difficulty, Outcome, and Perceiver Role,  $F(2,90) = 5.50$ ,  $p < .006$  (See Appendix E.1). Success relative to failure feedback gave rise to greater perceptions of success ( $M_s = 5.73$  vs.  $1.76$ , respectively). An inspection of the mean values for the Task Difficulty X Perceiver Role interaction revealed that actors perceived the outcome as equally more unsuccessful in the high and no task difficulty information conditions relative to the low task difficulty information condition ( $M_s = 3.82$  vs.  $3.78$  vs.  $3.44$ , respectively). Observers, on the other hand, perceived the outcome as most unsuccessful in the no information condition relative to the high and low task difficulty information conditions ( $M_s = 3.54$  vs.  $4.00$  vs.

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<sup>18</sup> The varying degrees of freedom for the error term reflect failures to respond on the part of one or more subject.





3.91, respectively).

As seen in Table 10, however, the presumed success vs. failure nature of the outcome modified the described interaction between Perceiver Role and Task Difficulty. When given success feedback, task difficulty information significantly affected actors', but not observers', perceptions of outcome successfulness. Actors perceived the supposedly successful outcome as most successful in the high task difficulty condition relative to the low and no task difficulty conditions; however, only the high and low task difficulty conditions differed significantly from each other. Furthermore, when given success feedback, actors' and observers' perceptions of outcome successfulness were significantly different only in the low task difficulty condition; in this condition, actors perceived the outcome to be less successful than observers. When given failure feedback, actors perceived the outcome as less successful in the high and low task difficulty conditions relative to the no task difficulty condition; only the latter mean differed significantly from the former two means. Observers perceived the failure outcome as significantly more successful in high relative to the no task difficulty information condition; only these two means differed significantly. Comparing actors and observers, it can be seen that their perceptions of the successfulness of the failure outcome did not differ significantly in the low task



Table 10  
 Mean Ratings of Outcome Successfulness as a function of  
 Outcome, Perceiver Role, and Task Difficulty  
 (Experiment 2)

Task Difficulty	Success		Failure	
	Actor	Observer	Actor	Observer
High	6.13 <sub>e</sub>	5.75 <sub>cde</sub>	1.50 <sub>a</sub>	2.25 <sub>b</sub>
Low	5.31 <sub>c</sub>	5.94 <sub>de</sub>	1.56 <sub>a</sub>	1.88 <sub>ab</sub>
No Information	5.56 <sub>cde</sub>	5.50 <sub>cde</sub>	2.00 <sub>b</sub>	1.38 <sub>a</sub>

Note. The higher the mean, the greater the perceived successfulness of the outcome. Means sharing no subscripts in common differ significantly ( $p < .05$ ) by Duncan's multiple range test.



difficulty information condition, whereas observers relative to actors perceived the outcome as significantly more successful in the high task difficulty condition; the opposite tendency was significant in the no information condition.

Participants in the high and low task difficulty conditions were given information regarding the percentage of past students who had succeeded in relaxing their clients. Participants in the no task difficulty condition were not given any information regarding past students' success rates. Participants' recall (estimates) of how difficult it was to perform well on the counselling task was assessed by asking them to recall (estimate) how well other students had done on the counselling task. This item was phrased: "What percentage of the students who have been in the study have succeeded in relaxing their respective clients?", labelled 1 = 0%, 2 = 15%, 3 = 50%, 4 = 85%, and 5 = 100%. All participants in the high task difficulty condition correctly recalled that only 15% of previous students had succeeded in relaxing their clients; one actor participant in this cell failed to answer the recall measure. All but one observer participant (in the low task difficulty/failure condition) correctly recalled that 85% of previous students had succeeded. In the no task difficulty information provided condition, 43.7% of the participants estimated that 50% of past students had succeeded, 7.8%



estimated that no students had succeeded, 17.2% estimated that only 15% of past students had succeeded, 26.6% estimated that 85% of past students had succeeded, and 4.7% estimated that 100% of past students had succeeded.

An analysis of variance was conducted on this measure to determine whether participants in the no task difficulty condition estimated success rates different than the success rates recalled by participants in the remaining two conditions. This analysis revealed significant main effects of Outcome,  $F(1,89) = 25.13, p < .001$ , Task Difficulty,  $F(2,89) = 248.33, p < .001$ , and a significant Outcome X Task Difficulty interaction,  $F(2,89) = 23.04, p < .001$  (See Appendix E.2). Fewer students were thought to have succeeded when the outcome was failure rather than success ( $M_s = 2.82$  vs.  $3.19$ , respectively). Past students' performance was indicated to be poorer when participants had been told that only 15% had succeeded ( $M = 2.00$ ) than when participants had been told that 85% succeeded ( $M = 3.99$ ), or when participants were given no information regarding how many students had succeeded ( $M = 3.03$ ). Only the mean for the low task difficulty information condition differed significantly from the means for the remaining two conditions, which were not significantly different from each other. Table 11 presents the mean recall (estimates) of past students' success rates partitioned by Outcome and Task Difficulty. As can be seen in Table 11, outcome valence





Table 11

Mean Estimates of Prior Students' Student Success Rate as a Function of  
Outcome and Task Difficulty  
(Experiment 2)

Task Difficulty	Success	Failure
High	2.00 <sub>a</sub>	2.00 <sub>a</sub>
Low	4.00 <sub>b</sub>	3.97 <sub>b</sub>
No Information	3.56 <sub>b</sub>	2.50 <sub>a</sub>

Note. The higher the mean, the greater the percentage of students who were perceived to succeed. Means not sharing a common subscript differ significantly ( $p < .05$ ) by Duncan's multiple range test.



yielded a significant congruency effect on the success rate estimates given by participants in the no task difficulty information condition. These participants estimated that more students had succeeded when the actor in their session had succeeded than when (s)he had failed.

To ensure that the information about past students' success rate appropriately affected perceptions of task difficulty, participants were asked to rate how difficult the counselling task was on an item worded: "To what extent do you feel the counselling task was difficult?" (1 = not very much, 7 = very much). An analysis of variance conducted on this measure revealed significant main effects of Outcome,  $F(1,90) = 38.37, p < .001$ , and Perceiver Role,  $F(1,90) = 13.37, p < .001$ ; a significant 2-way interaction between Outcome and Perceiver Role,  $F(1,90) = 10.16, p < .002$ , and a significant Outcome X Task Difficulty X Perceiver Role interaction,  $F(2,90) = 3.07, p < .05$  (See Appendix E.3). The task was perceived as more difficult in the failure ( $M = 5.37$ ) than in the success ( $M = 4.12$ ) condition. The task was perceived as least-to-most difficult in the low ( $M = 4.22$ ), no ( $M = 4.69$ ), and high ( $M = 5.31$ ) task difficulty condition; only the former two means were not significantly different. The Outcome X Perceiver Role interaction revealed that the success vs. failure nature of the outcome significantly affected actors' perceptions of task difficulty ( $M_s = 4.17$  vs.  $6.12$ ,



respectively), whereas the success vs. failure nature of the outcome did not significantly affect observers' perceptions of task difficulty ( $M_s = 4.06$  vs.  $4.61$ , respectively).

Table 12 presents the mean task difficulty ratings partitioned by Outcome, Task Difficulty, and Perceiver Role. An inspection of Table 12 reveals that outcome valence relative to task difficulty information had a greater effect on actors' perceptions of task difficulty, but that task difficulty information relative to outcome information had a greater effect on observers' task difficulty estimates. Actors' estimates of task difficulty were affected in the expected direction by task difficulty information. However, actors' estimates of task difficulty were also significantly affected by how well they performed the counselling task. The effect of outcome on actors' perceptions of task difficulty was not significant only in the no information condition. Observers, on the other hand, perceived the greatest task difficulty difference between success and failure, primarily when they were not given information regarding how well other students performed on the counselling task, although this difference was not significant.

An analysis of variance conducted on participants' perceptions of choice revealed only a marginally significant interaction between Perceiver Role and Outcome,  $F(1,88) = 3.70$ ,  $p < .06$  (See Appendix E.4). Although not significant





Table 12

Mean Perceived Task Difficulty as a Function of Perceiver Role, Outcome,  
and Task Difficulty  
(Experiment 2)

Task Difficulty	Actor		Observer	
	Success	Failure	Success	Failure
High	4.44 <sub>abcd</sub>	6.81 <sub>f</sub>	4.81 <sub>cde</sub>	5.19 <sub>de</sub>
Low	3.31 <sub>a</sub>	5.75 <sub>ef</sub>	3.88 <sub>abc</sub>	3.94 <sub>abc</sub>
No Information	4.75 <sub>cde</sub>	5.81 <sub>ef</sub>	3.50 <sub>ab</sub>	4.69 <sub>bcde</sub>

Note. Higher means reflect greater perceived task difficulty.  
Means sharing no subscripts in common differ significantly ( $p < .05$ )  
using Duncan's multiple range test.



by conventional standards, the participants' mean ratings of choice revealed a pattern of results consistent with research on perceptions of choice (e.g., Harris & Harvey, 1975). Specifically, actors perceived themselves to have significantly greater choice when the outcome was a success rather than a failure ( $M_s = 5.11$  vs.  $4.50$ , respectively), whereas observers' perceptions of choice were not affected significantly by the success or failure nature of the outcome ( $M_s = 4.48$  vs.  $4.63$ , respectively). <sup>19</sup>

To assess whether participants correctly recalled that they would be discussing their answers to the questions with the psychologists-supervisors of the study, participants were asked the following question: "When did the experimenter indicate you would be discussing your answers with the team of psychologists supervising the study?", with the category labels of 1 ("at the end of the session, i.e., when the evaluation phase is over."), 4 ("I won't be, because they are not available."), and 7 ("I will be contacted by telephone in about two weeks time.") Ninety-nine percent of the actors and 95% of the observers correctly chose the first alternative. Neither the outcome nor the task difficulty manipulation was significantly

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<sup>19</sup> Neither the outcome nor the task difficulty manipulations was significantly related to which of the four counselling approaches was selected by actors,  $X^2(3) = 3.89$ ,  $p < .27$ . As in the first study, the most-to-least frequently chosen approaches were: Indirect Rational (49%), Indirect Emotional (28.1%), Direct Rational (12.5%), and Direct Emotional (10.4%).



related to either actors',  $X^2(2) = 1.03$ ,  $p < .31$ , or observers',  $X^2(2) = .36$ ,  $p < .54$ , answers to this question.

An analysis of variance conducted on participants' feelings of caution revealed significant main effects of Outcome,  $F(1,89) = 6.59$ ,  $p < .01$ , and Perceiver Role,  $F(1,89) = 17.15$ ,  $p < .001$  (See Appendix E.5). Observers reported greater feelings of caution than actors ( $M_s = 4.74$  vs.  $3.79$ , respectively) and success led to greater felt caution than failure ( $M_s = 4.61$  vs.  $3.93$ , respectively).

#### Major Scale Response Dependent Measures

*Causal attributions.* Participants were asked to summarize their perceptions of the causes of actors' performance on two measures of personal and situational causal attribution as well as on three more specific measures of attributions to ability, task difficulty, and effort. The analysis of variance conducted on the person attribution item revealed several significant effects, including the main effect of Outcome,  $F(1,72) = 14.76$ ,  $p < .001$ , 2-way interactions between Outcome and Task Difficulty,  $F(2,72) = 34.11$ ,  $P < .001$ , Outcome and Order,  $F(1,72) = 4.42$ ,  $p < .04$ , Task Difficulty and Order,  $F(2,72) = 4.86$ ,  $p < .01$ , Outcome and Perceiver Role,  $F(1,72) = 353.52$ ,  $p < .001$ , Task Difficulty and Perceiver Role,  $F(2,72) = 9.38$ ,  $p < .001$ , and the 3-way interaction among Outcome, Order, and Perceiver Role,  $F(1,72) = 3.90$ ,  $p < .05$ .



.05). (See Appendix E.6). <sup>20</sup> The 3-way interaction among Outcome, Task Difficulty, and Perceiver Role failed to meet an acceptable level of significance,  $F(2,72) = 2.04$ ,  $p < .14$ .

Table 13 presents the mean personal attributions for each of the conventionally reliable 2-way interactions, not including Response Order. It can be seen in panel (a) of Table 13 that task difficulty information significantly modified the effect of success and failure on participants' causal attributions in the expected directions. Specifically, high task difficulty information led to the greatest personal attribution for success, but the lowest personal attribution for failure. Low task difficulty information led to significantly lower personal attributions for success than failure. There was also a tendency to attribute success more than failure to personal causes in the no task difficulty condition, although this difference was not significant. As seen in panel (b), the traditionally reported actor-observer attributional difference on success and failure was found, which replicates and strengthens the findings reported in the

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<sup>20</sup> This analysis also revealed a significant Sex X Task Difficulty X Perceiver Role interaction,  $F(2,72) = 3.15$ ,  $p < .05$ , as well as a significant Sex X Response Order X Outcome X Perceiver Role interaction,  $F(2,72) = 3.95$ ,  $p < .05$ . Due to the fact that subject and confederate sex were experimentally confounded, no conclusions or interpretations should be based on these effects. The mean values for the two interactions are presented in Appendices F.1 and F.2.





Table 13

Mean Personal Attributions as a Function of Outcome, Task Difficulty,  
and Perceiver Role (2-way interactions)  
(Experiment 2)

(a) Outcome X Task Difficulty			
Task Difficulty			
Outcome	High	Low	No Information
Success	6.00 <sub>d</sub>	4.50 <sub>ab</sub>	5.00 <sub>bc</sub>
Failure	3.97 <sub>a</sub>	5.38 <sub>cd</sub>	4.50 <sub>ab</sub>

  

(b) Perceiver Role X Outcome		
Perceiver Role		
Outcome	Actor	Observer
Success	6.38 <sub>a</sub>	3.96 <sub>b</sub>
Failure	3.55 <sub>b</sub>	5.70 <sub>c</sub>

  

(c) Perceiver Role X Task Difficulty			
Task Difficulty			
Perceiver Role	High	Low	No Information
Actor	4.76 <sub>a</sub>	5.35 <sub>b</sub>	4.79 <sub>a</sub>
Observer	5.22 <sub>b</sub>	4.54 <sub>a</sub>	4.72 <sub>a</sub>

Note. A higher mean reflects a greater personal attribution. Means sharing no common subscripts within a panel differ significantly ( $p < .05$ ) by Duncan's multiple range test.



first study within the public condition.

Provision of specific information seems to be necessary to produce the actor-observer difference, as reflected in panel (c) of Table 13. The apparent failure to find the actor-observer personal attribution difference in the no information condition is obscured somewhat, however, by collapsing across the success vs. failure nature of the outcome.

In this respect, the mean values reported in Table 14 indicates that several interesting and reliable effects were obtained, even though the Outcome X Task Difficulty X Perceiver Role interaction was not significant. First, the success-failure attributional patterns for actors were most similar in the no information and high task difficulty conditions. Although actors consistently offered higher personal attributions for success than failure, this effect was reduced by low task difficulty information, especially in the failure condition. It thus appears as if the most psychologically impactful cell for actors is failure/low task difficulty. Second, a somewhat different pattern emerged for observers: The success-failure pattern was most similar for observers in the low task difficulty and no information cells, whereas equally high personal attributions were made for success and failure when high task difficulty information was provided. Although high task difficulty failed to reduce significantly observers'



Table 14

Mean Personal Attributions as a Function of Perceiver Role, Outcome,  
and Task Difficulty (3-way interaction)  
(Experiment 2)

Task Difficulty	Actor		Observer	
	Success	Failure	Success	Failure
High	6.75 <sub>f</sub>	2.75 <sub>a</sub>	5.25 <sub>d</sub>	5.19 <sub>cd</sub>
Low	6.06 <sub>e</sub>	4.63 <sub>c</sub>	2.94 <sub>a</sub>	6.13 <sub>ef</sub>
No Information	6.31 <sub>ef</sub>	3.25 <sub>ab</sub>	3.67 <sub>b</sub>	5.75 <sub>de</sub>

Note. A higher mean reflects a greater personal attribution.  
Means sharing no subscripts in common differ significantly ( $p < .05$ )  
by Duncan's multiple range test.





personal attributions for failure, it did significantly increase their personal attributions for success. This suggests that the most psychologically impactful cell for observers was success/high task difficulty. Third, examining the interaction between Task Difficulty and Outcome for observers only, it can be seen that observers offered personal attributions for success compatible with the explicitly provided difficulty information. Observers also tended to offer attributions for failure in line with task difficulty, although these adjustments were considerably weaker than the attributional adjustments made for success.

Table 15 presents the interactions involving Response Order on the person attribution item. Panel (a) of this table indicates that the tendency to attribute success more than failure to personal causes was greatest when the personal attribution item followed the sanctioning evaluation items. Panel (b) indicates that the personal attributions made in the no information condition corresponded to the attributions made in the low task difficulty information condition when the causal attribution questions preceded the sanctioning evaluation questions, whereas personal attributions were unaffected by task difficulty information when the causal attribution questions followed the sanctioning evaluation questions. From any perspective, this is a difficult interaction to interpret



Table 15  
Mean Personal Attribution as a Function of Response Order,  
Outcome, Task Difficulty, and Perceiver Role  
(Experiment 2)

(a) Outcome X Order				
Outcome	Causal Attribution First		Causal Attribution Last	
Success	4.90 <sub>a</sub>		5.44 <sub>b</sub>	
Failure	4.65 <sub>a</sub>		4.58 <sub>a</sub>	
(b) Task Difficulty X Order				
Order	High	Low	No Information	
Causal Attribution First	5.13 <sub>c</sub>	4.53 <sub>a</sub>	4.66 <sub>ab</sub>	
Causal Attribution Last	4.84 <sub>abc</sub>	5.34 <sub>c</sub>	4.85 <sub>abc</sub>	
(c) Outcome X Order X Role				
Order	Success		Failure	
	Actor	Observer	Actor	Observer
Causal Attribution First	6.04 <sub>c</sub>	3.75 <sub>ab</sub>	3.75 <sub>ab</sub>	5.54 <sub>c</sub>
Causal Attribution Last	6.71 <sub>d</sub>	4.17 <sub>b</sub>	3.33 <sub>a</sub>	5.83 <sub>c</sub>

Note. The higher the mean, the greater the personal attribution. Means within a panel sharing no subscripts in common differ significantly ( $p < .05$ ) by Duncan's multiple range test.



because it obscures the interactive effect of outcome and task difficulty on the magnitude of the personal attributions made. Panel (c) of Table 15 reflects the different effects that the Response Order manipulation had on the magnitude of actors' and observers' personal attributions, especially when the outcome was a success. Observers and especially actors made higher personal attributions for success when the attribution questions followed rather than preceded the sanctioning evaluation questions. The same tendency was manifested nonsignificantly by observers in the failure condition. Actors, on the other hand, tended to make greater personal attributions for failure when the attribution questions preceded rather than followed the sanctioning evaluation questions, although again this tendency was not significant.

The analysis of variance conducted on the situational attribution item revealed a significant main effect of Outcome,  $F(1,84) = 18.09$ ,  $p < .001$ , significant 2-way interactions between Outcome and Task Difficulty  $F(2,84) = 18.69$ ,  $p < .001$ , Outcome and Perceiver Role,  $F(1,84) = 365.63$ ,  $p < .001$ , significant 3-way interactions of Outcome X Task Difficulty X Perceiver Role,  $F(2,84) = 3.30$ ,  $p < .04$ , and Outcome X Order X Perceiver Role,  $F(2,84) = 6.49$ ,  $p < .01$ , and a significant 4-way interaction,  $F(2,84) = 3.30$ ,  $p < .04$  (See Appendix E.7). Since the 4-way interaction qualifies all lower-order effects, this effect only is



described. Table 16 presents the mean situational attribution ratings partitioned by the 4-way interaction.

As seen in Table 16, actors tended to attribute failure more than success to the situation, whereas observers tended to attribute success more than failure to the situation. Low task difficulty information increased observers' tendencies to make greater situational attributions for success than failure especially in the Causal Attribution First condition. Low task difficulty information reduced actors' tendencies to make greater situational attributions for failure than success, especially in the Causal Attribution Last condition. Thus, the four-way interaction overall reflects the expected actor-observer difference in situational attributions. The response order manipulation had two anomalous effects. First, the effects of high and low task difficulty information on actors' situational attributions for failure depended upon response order. Actors made higher situational attributions under high than no task difficulty when this question preceded the sanctioning evaluation questions; whereas actors made lower situational attributions under high than no task difficulty when this question followed the sanctioning evaluation questions. Second, under high task difficulty, observers in the Causal Attribution Last condition reversed their tendency to attribute success more than failure to the situation. The latter effect is interesting. It may





Table 16  
Mean Situational Attributions as a Function of Perceiver Role,  
Task Difficulty, Outcome, and Response Order  
(Experiment 2)

Causal Attribution First				
Task Difficulty	Actor		Observer	
	Success	Failure	Success	Failure
High	2.13	5.88	4.38	3.88
Low	3.00	5.25	5.75	2.13
No Information	2.88	5.63	4.88	3.50

  

Causal Attribution Last				
Task Difficulty	Actor		Observer	
	Success	Failure	Success	Failure
High	2.25	5.75	3.75	4.88
Low	3.38	4.63	5.50	3.13
No Information	2.50	5.88	4.63	3.36

Note. The higher the mean, the greater the situational attribution.



suggest that observers only rationally adjust their attributions to the available causal information when they are given sufficient time to consider the available information.

The situational attributions made by participants were negatively correlated with their personal attributions,  $r(190) = -.70$ ,  $p < .001$ , a result that is interesting in light of recent statements that the two measures are not necessarily perceived to be interdependent (Solomon, 1978; Taylor & Koivumaki, 1976). To capture better the inverse relationship apparently perceived by participants between the personal and situational attribution items, a personal-situational index was constructed by subtracting each subject's situational attribution rating from his/her personal attribution rating. This personal-situational index could range from +6 to -6, with positive scores reflecting greater personal than situational attributions and negative scores reflecting the opposite tendency. The analysis of variance conducted on this index revealed a significant main effect of Outcome,  $F(1,72) = 24.20$ ,  $p < .001$ ; significant 2-way interactions between Outcome and Task Difficulty,  $F(2,72) = 36.59$ ,  $p < .001$ , Outcome and Perceiver Role,  $F(1,72) = 542.62$ ,  $p < .001$ , Task Difficulty and Perceiver Role,  $F(2,72) = 3.47$ ,  $p < .04$ , and a significant Outcome X Perceiver Role X Task Difficulty



interaction,  $F(2,72) = 3.81, p < .03$  (See Appendix E.8). <sup>21</sup>

As shown in Table 17, the personal-situational index revealed a tendency of actors to attribute success to personal factors but failure to situational factors; a tendency that was reduced only when low task difficulty information had been provided. Observers, on the other hand, tended to attribute failure to personal factors and success to situational factors; a tendency that was reversed somewhat when high task difficulty information had been provided. Less confidence should be placed in the observer results on this index, however, because of the significant crossover effect of response order on observers' situational attributions in the high task difficulty condition (See Table 16). But, overall the separate and combined indices of personal and situational attribution suggest that actors' attributions for success and failure are made from the viewpoint that the counselling task was difficult and it is only when this belief of actors is questioned that the apparent attributional bias is reduced somewhat. On the other hand, observers' attributions for success and failure are made from the viewpoint that the task is less difficult and it is only when this belief of observers is explicitly

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<sup>21</sup> This analysis also revealed a significant Sex X Task Difficulty X Perceiver Role interaction,  $F(2,72) = 3.59, p < .03$ , as well as a significant Sex X Task Difficulty X Response Order interaction,  $F(2,72) = 3.12, p < .05$ . The means for these interactions are presented in Appendices F.3 and F.4.





Table 17

Mean Personal-Situational Attribution Index as a Function of Perceiver  
Role, Outcome, and Task Difficulty  
(Experiment 2)

Task Difficulty	Actor		Observer	
	Success	Failure	Success	Failure
High	4.56 <sub>f</sub>	-3.06 <sub>a</sub>	1.19 <sub>c</sub>	.81 <sub>c</sub>
Low	2.88 <sub>de</sub>	-.31 <sub>b</sub>	-2.69 <sub>a</sub>	3.50 <sub>e</sub>
No Information	3.63 <sub>e</sub>	-2.50 <sub>a</sub>	-1.06 <sub>b</sub>	2.31 <sub>d</sub>

Note. More positive index scores reflect greater personal than situational attributions; more negative index scores reflect greater situational than personal attributions (range = +6 to -6). Means sharing no subscripts in common differ significantly ( $p < .05$ ) using Duncan's multiple range test.



undermined that they evaluate actors less harshly for failure and more benevolently for success.

Attributions to ability were assessed on the item phrased: "To what extent do you feel that the student counsellor's success or failure in relaxing the client was due to the student counsellor's ability on this kind of task?" An analysis of variance conducted on this item revealed significant main effects of Outcome,  $F(1,90) = 8.77$ ,  $p < .004$ , and Perceiver Role,  $F(1,90) = 8.09$ ,  $p < .005$ ; significant 2-way interactions between Outcome and Task Difficulty,  $F(2,90) = 24.08$ ,  $p < .001$ , Perceiver Role and Outcome,  $F(1,90) = 338.93$ ,  $p < .001$  and a marginally significant Perceiver Role X Task Difficulty interaction,  $F(2,90) = 2.82$ ,  $p < .06$ . The 3-way interaction did not approach significance on this measure,  $F(2,90) < 1$  (See Appendix E.9). Table 18 presents the mean ability attributions partitioned by each of the 2-way interactions.

Panel (a) of Table 18 reflects the tendency of participants to attribute success more than failure to the stable internal characteristic of ability given either no task difficulty or high task difficulty information, whereas the opposite tendency occurred given low task difficulty information. Overall, this reflects a rational use of task difficulty information and a potential bias of the situation toward perceiving the task as difficult. Panel (b) of Table 18, however, confirms the actor-observer attribution



Table 18

Mean Attributions to Actors' Ability as a Function of Outcome, Task Difficulty, and Perceiver Role  
(Experiment 2)

(a) Outcome X Task Difficulty			
Outcome	Task Difficulty		
	High	Low	No Information
Success	5.50 <sub>a</sub>	4.06 <sub>bc</sub>	5.16 <sub>a</sub>
Failure	3.91 <sub>bc</sub>	5.19 <sub>a</sub>	4.13 <sub>b</sub>

  

(b) Perceiver Role X Outcome		
Outcome	Perceiver Role	
	Actor	Observer
Success	5.88 <sub>a</sub>	3.94 <sub>b</sub>
Failure	3.08 <sub>b</sub>	5.73 <sub>a</sub>

  

(c) Perceiver Role X Task Difficulty		
Task Difficulty	Perceiver Role	
	Actor	Observer
High	4.41 <sub>a</sub>	5.00 <sub>b</sub>
Low	4.66 <sub>ab</sub>	4.59 <sub>ab</sub>
No Information	4.38 <sub>a</sub>	4.91 <sub>b</sub>

Note. The higher the mean, the higher the attribution to ability. Means within a panel sharing no subscripts in common differ significantly ( $p < .05$ ) by Duncan's multiple range test.



difference on the internal/stable dimension of ability. Panel (c) of Table 18 again indicates that the least divergence occurred between actors and observers when they had been given low task difficulty information.

Attributions to task difficulty were assessed on the item: "To what extent do you feel the student counsellor's success or failure in relaxing the client was due to the difficulty of the counselling task?" The analysis of variance conducted on this item revealed a significant main effect of Outcome,  $F(1,90) = 4.62, p < .03$ ; significant 2-way interactions between Outcome and Task Difficulty,  $F(2,90) = 5.94, p < .004$ , and Perceiver Role and Outcome,  $F(1,90) = 145.25, p < .001$ , as well as a significant 3-way interaction among Perceiver Role, Outcome, and Task Difficulty,  $F(2,90) = 5.54, p < .005$  (See Appendix E.10).

It can be seen in Table 19 that actors made low attributions to task difficulty for success, regardless of the task difficulty information specified; none of these comparisons was significant. Actors made higher task difficulty attributions for failure, especially when given high task difficulty information, although only the high task difficulty condition differed significantly from the no task difficulty condition. It thus appears as if actors discounted the explicit task difficulty information for success, but used this information to their advantage for failure. Observers manifested a mixed rational and





Table 19

Mean Attributions to Task Difficulty as a Function of Perceiver Role,  
Outcome, and Task Difficulty  
(Experiment 2)

Task Difficulty	Actor		Observer	
	Success	Failure	Success	Failure
High	3.81 <sub>bc</sub>	6.25 <sub>f</sub>	4.44 <sub>cd</sub>	4.56 <sub>d</sub>
Low	3.63 <sub>ab</sub>	5.63 <sub>ef</sub>	5.63 <sub>ef</sub>	3.06 <sub>a</sub>
No Information	3.71 <sub>ab</sub>	5.44 <sub>e</sub>	5.44 <sub>e</sub>	4.07 <sub>bcd</sub>

Note. A higher mean reflects a greater attribution to task difficulty. Means sharing no subscripts in common differ significantly ( $p < .05$ ) by Duncan's multiple range test.



irrational use of task difficulty information. For success, observers reduced their attributions to task difficulty when the task was described as difficult; only this mean differed significantly from the no and low task difficulty information condition means. Furthermore, it appears as if success led observers to think that the task was not very difficult. An apparently different assumption was made by observers for failure, viz., unless explicitly specified, the task was difficult. Observers made significantly lower attributions to task difficulty in the low task difficulty condition relative to the high and no task difficulty conditions. Results on this item are consistent with the idea that actors and observers make different assumptions about external constraints on the actor's performance, which are reflected in their attributions for task performance.

Attributions to actors' effort on the task were assessed by responses to the following item: "To what extent do you feel that the student counsellor's success or failure in relaxing the client was due to the amount of effort (s)he expended on the counselling task?" The main effect of Outcome,  $F(1,84) = 38.88, p < .001$ , and the Perceiver Role  $\times$  Outcome interaction,  $F(1,84) = 44.73, p < .001$ , were significant in the analysis of variance conducted on this



item (See Appendix E.11). <sup>22</sup> Greater attributions to the actor's effort were made when the outcome was a success ( $M = 5.26$ ) than when the outcome was a failure ( $M = 4.14$ ). Actors made significantly greater effort attributions for success than failure ( $M_s = 5.96$  vs.  $3.50$ , respectively), whereas observers made nonsignificantly lower effort attributions for success than failure ( $M_s = 4.56$  vs.  $4.77$ , respectively).

In addition to the separate ability, effort, and task difficulty attribution measures, a combined attribution index of these items was calculated. Since ability and effort are internal causes and task difficulty is an external cause, this index consisted of taking the difference between task difficulty attributions and the average of ability and effort attributions, with the resultant score range of +6 (highest ability and effort; lowest task difficulty attributions) to -6 (highest task difficulty; lowest ability and effort attributions). An analysis of variance conducted on this index revealed a significant main effect of Outcome,  $F(1,90) = 26.88$ ,  $p < .001$ , and significant 2-way interactions between Task Difficulty and Outcome,  $F(2,90) = 15.78$ ,  $p < .001$ , and

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<sup>22</sup> This analysis also revealed a significant Outcome X Sex interaction,  $F(1,84) = 6.45$ ,  $p < .01$ . An inspection of the means for this interaction revealed that males' effort attributions ( $M_s = 5.08$  vs.  $4.42$ , respectively) were not affected as much by success vs. failure as were females' effort attributions ( $M_s = 5.44$  vs.  $3.85$ , respectively).





Perceiver Role and Outcome,  $F(1,90) = 308.17$ ,  $p < .001$  (See Appendix E.12). As seen in panel (a) of Table 20, higher internal than external attributions were made for success than failure, except when the task was ostensibly easy. Panel (b) indicates that actors made greater internal than external attributions for success than failure, whereas the opposite pattern emerged for observers.

*Sanctioning evaluations.* An analysis of variance conducted on the bipolar credit-blame measure revealed significant main effects of Outcome,  $F(1,84) = 135.73$ ,  $p < .001$ , Task Difficulty,  $F(2,84) = 21.92$ ,  $p < .001$ , and Perceiver Role,  $F(1,84) = 371.44$ ,  $p < .001$ ; and a significant 2-way interaction between Outcome and Task Difficulty,  $F(2,84) = 4.13$ ,  $P < .02$  (See Appendix E.13). The Perceiver Role X Outcome interaction and 3-way interaction among Outcome, Perceiver Role, and Task Difficulty did not approach significance in this analysis.

It should be noted, however, that the bipolar nature of the scale in conjunction with the success vs. failure nature of the outcome practically forces the failure to find these interactions. That is, participants in the success condition may have always responded with a lower number on the scale, whereas participants in the failure condition may have always responded higher on the scale. This is in contrast to what might have happened if a unidirectional scale, reflecting low to high degrees of credit (or blame),



Table 20  
Mean Internal-External Attribution Index as a Function of Outcome,  
Task Difficulty, and Perceiver Role  
(Experiment 2)

(a) Outcome X Task Difficulty			
Task Difficulty			
Outcome	High	Low	No Information
Success	1.31 <sub>d</sub>	-.06 <sub>bc</sub>	.72 <sub>cd</sub>
Failure	-1.53 <sub>a</sub>	.33 <sub>bc</sub>	-.48 <sub>b</sub>

  

(b) Perceiver Role X Outcome		
Perceiver Role		
Outcome	Actor	Observer
Success	2.23 <sub>b</sub>	-.92 <sub>c</sub>
Failure	-2.48 <sub>d</sub>	1.35 <sub>a</sub>

Note. A more positive score reflects a greater internal attribution to the actor. Means within a panel sharing no common subscripts differ significantly ( $p < .05$ ) by Duncan's multiple range test.



had been used. Using this type of scale perceivers may, for example, have highly credited but minimally blamed the actor in the high task difficulty condition; whereas the opposite response pattern may have occurred in the low task difficulty condition. These response patterns would have been reflected in at least a Task Difficulty X Outcome interaction.

Furthermore, it could be the case that participants in the two outcome conditions were differently interpreting the scale accompanying this measure. That is, participants in the two outcome conditions may not have been using the full scale range or may have psychologically transformed the scale to reflect a unidirectional 7-point scale of how much blame (for failure) and how much credit (for success) the actor deserved. Several pieces of information are consistent with this hypothesis. First, the response latency results of Experiment 1 and the present experiment revealed that participants took longer to answer the credit-blame question than the three other questions included within the Response Order manipulation (overall  $M_s = 11.50$  vs.  $8.40$ , respectively). Second, although no quantifiable data were collected in this respect, participants regularly complained about the bipolar measure of credit-blame, inquiring as to why the scale endpoints were labelled differently than the other questions. Third, there was a context effect, especially for participants in



the Causal Attribution Last condition, i.e., participants had answered one to three earlier questions labelled 1 = not very much and 7 = very much. Therefore, the bipolar credit-blame measure was rescaled to reflect more of a unidirectional scale by subtracting scores from 8 in the success condition. An analysis of variance, conducted on the rescaled credit-blame measure revealed significant main effects of Outcome,  $F(1,84) = 21.33, p < .001$  and Task Difficulty,  $F(2,84) = 4.13, p < .02$ ; significant 2-way interactions between Outcome and Task Difficulty,  $F(2,84) = 21.92, p < .001$ , Outcome and Perceiver Role,  $F(1,84) = 371.43, p < .001$ , but only a marginally significant Perceiver Role X Outcome X Task Difficulty interaction,  $F(2,84) = 2.69, p < .07$  (See Appendix E.14).

Table 21 presets the nonrescaled and rescaled means on the credit-blame item for the 2-way interactions between Task Difficulty and Outcome, Outcome and Perceiver Role, and the 3-way interaction.

It can be seen in all three panels of Table 21 that the credit-blame measure (scaled and not rescaled) reveals a similar pattern of results to that reported for causal attribution. Specifically, failure was not ascribed as much blame as success was ascribed credit when the task was described as difficult or when task difficulty information was not explicitly mentioned. When low task difficulty information was provided, however, actors were blamed more





Table 21

Mean Rescaled and Nonrescaled Credit/Blame Ascriptions as a Function of Outcome, Task Difficulty and Perceiver Role

(Experiment 2)

(a) Outcome X Task Difficulty				
Outcome	High	Low	No Information	
Success	2.19 <sub>a</sub>	3.16 <sub>b</sub>	2.97 <sub>b</sub>	
	(5.81)	(4.84)	(5.03)	
	3.97 <sub>c</sub>	5.44 <sub>d</sub>	4.19 <sub>c</sub>	
(b) Perceiver Role X Outcome				
Outcome	Actor	Observer		
Success	1.88 <sub>a</sub>	3.67 <sub>b</sub>		
	(6.13)	(4.33)		
Failure	3.50 <sub>b</sub>	5.56 <sub>c</sub>		
(c) Perceiver Role X Outcome X Task Difficulty				
	Actor		Observer	
Task Difficulty	Success	Failure	Success	Failure
High	1.38 <sub>a</sub>	3.14 <sub>c</sub>	3.00 <sub>c</sub>	4.81 <sub>ef</sub>
	(6.63)		(5.00)	
Low	2.31 <sub>b</sub>	4.38 <sub>de</sub>	4.00 <sub>d</sub>	6.50 <sub>h</sub>
	(5.69)		(4.00)	
No Information	1.94 <sub>ab</sub>	3.00 <sub>c</sub>	4.00 <sub>d</sub>	5.39 <sub>f</sub>
	(6.06)		(4.00)	

Note. For the nonrescaled scores, the higher the mean, the more blame ascribed (1 = should be credited a lot; 7 = should be blamed a lot). For the rescaled scores, the higher the mean the more credit (blame) ascribed. Rescaled scores are presented in parentheses (for success only). Mean scores within a panel sharing no subscripts in common differ significantly ( $p < .05$ ) by Duncan's multiple range test.



for failure and credited less for success. As found in Study 1, actors credited themselves more for success and blamed themselves less for failure than observers. Finally, Task Difficulty only somewhat modified the Perceiver Role X Outcome interaction such that the apparent actor-observer attribution difference seems to reflect actors' assumption that the task was difficult in the no information condition, whereas observers' seemed to assume that the task was easy. Actors and observers' differential perceptions of task difficulty bear out this interpretation (See Table 12).

The analysis of variance conducted on the measure of actor responsibility revealed significant main effects of Outcome,  $F(1,90) = 14.33$ ,  $p < .001$ , and significant Perceiver Role X Outcome,  $F(1,90) = 390.95$ ,  $p < .001$ , Outcome X Task Difficulty,  $F(2,90) = 22.28$ ,  $p < .001$ , and Perceiver Role X Task Difficulty,  $F(2,90) = 4.65$ ,  $p < .05$ , interactions (See Appendix E.15). Actors were perceived as equally responsible for success and failure when no task difficulty information was given ( $M_s = 4.72$  vs.  $4.25$ , respectively); as more responsible for success than failure with high task difficulty ( $M_s = 5.94$  vs.  $3.59$ , respectively); but as less responsible for success than failure under low task difficulty ( $M_s = 3.97$  vs.  $4.66$ , respectively). Observers relative to actors assigned more responsibility to actors when the task was presumably difficult ( $M_s = 5.03$  vs.  $4.50$ , respectively), whereas



observers relative to actors assigned less responsibility to actors when the task was presumably less difficult ( $M_s = 4.19$  vs.  $4.44$ , respectively) and when no task difficulty information was provided ( $M_s = 4.44$  vs.  $4.53$ , respectively); only the first comparison was significant.

An analysis of variance conducted on the client responsibility item revealed only a significant main effect of Outcome,  $F(1,90) = 31.51$ ,  $p < .001$ , and a significant Perceiver Role X Outcome interaction,  $F(1,90) = 79.34$ ,  $p < .001$  (See Appendix E.16). The client was perceived as more responsible in the success ( $M = 5.70$ ) relative to the failure ( $M = 4.18$ ) condition.

Table 22 presents the Perceiver Role X Outcome interaction means for both the actor- and client-responsibility measures. Also presented in Table 22 are the Perceiver Role X Outcome results of an index constructed by subtracting client responsibility ascription scores from actor responsibility ascription scores (range =  $+6$  to  $-6$ ), on which only the Outcome X Task Difficulty,  $F(2,90) = 10.49$ ,  $p < .001$ , and Perceiver Role X Outcome,  $F(1,90) = 233.86$ ,  $p < .001$ , interactions were significant (See Appendix E.17). As seen in this table, actors held themselves relative to the client more responsible for success than failure, but actors held the client relative to themselves more responsible for failure than success. The opposite responsibility attributions were made by observers.





Table 22

Mean Actor, Client, and Actor-Client Index Responsibility Attributions  
as a Function of Outcome and Perceiver Role  
(Experiment 2)

Outcome X Item	Actor	Observer
Success		
Actor Responsibility (a)	5.94 <sub>a</sub>	3.81 <sub>b</sub>
Client Responsibility (b)	4.40 <sub>a</sub>	6.00 <sub>b</sub>
Actor-Client Responsibility (a)	1.54 <sub>a</sub>	-2.19 <sub>b</sub>
Failure		
Actor Responsibility	3.04 <sub>c</sub>	5.29 <sub>d</sub>
Client Responsibility	5.15 <sub>c</sub>	3.21 <sub>d</sub>
Actor-Client Responsibility	-2.10 <sub>b</sub>	2.08 <sub>a</sub>

Note. The higher the mean, the greater the responsibility attributed to (a) the actor and (b) the client. The subscripts refer to post-hoc comparisons made among the means contributing to any one measure, not to comparisons among the means across the measures. Means within an item sharing no common subscripts differ significantly ( $p < .05$ ) by Duncan's multiple range test.



The Outcome X Task Difficulty interaction on this index reaffirms earlier reported findings: The clients were perceived as more responsible under success than failure with low task difficulty ( $M_s = -1.34$  vs.  $.50$ , respectively) and no task difficulty ( $M_s = -.38$  vs.  $-.03$ , respectively), but not under high task difficulty ( $M_s = .75$  vs.  $-.50$ , respectively).

The last measure to be considered in this section is participants' assignments of reward to the actor. An analysis of variance conducted on this measure revealed significant main effects of Outcome,  $F(1,84) = 295.17$ ,  $p < .001$ , Task Difficulty,  $F(2,84) = 7.57$ ,  $p < .001$ , and Perceiver Role,  $F(1,84) = 290.66$ ,  $p < .001$ ; significant 2-way interactions between Outcome and Task Difficulty,  $F(2,84) = 5.83$ ,  $p < .005$ , Perceiver Role and Outcome,  $F(1,84) = 5.37$ ,  $p < .02$ , and a marginally significant Perceiver Role X Task Difficulty interaction,  $F(2,84) = 2.88$ ,  $p < .06$ . The 3-way interaction did not approach significance on this measure ( $F < 1$ ) (See Appendix E.18).

Table 23 presents the means for each of the 2-way interactions.

As seen in panel (a) of Table 23, high task difficulty information increased recommendations of reward for success relative to the no and low task difficulty information conditions. Task difficulty information did not similarly affect recommendations of reward for failure, i.e.,



Table 23

Mean Assignments of Reward to Actors as a Function of Outcome, Task Difficulty, and Perceiver Role  
(Experiment 2)

(a) Outcome X Task Difficulty			
Outcome	Task Difficulty		
	High	Low	No Information
Success	5.94 <sub>d</sub>	5.13 <sub>c</sub>	5.09 <sub>c</sub>
Failure	2.97 <sub>b</sub>	2.41 <sub>a</sub>	3.28 <sub>b</sub>
(b) Perceiver Role X Outcome			
Outcome	Perceiver Role		
	Actor	Observer	
Success	6.31 <sub>a</sub>	4.46 <sub>b</sub>	
Failure	4.10 <sub>b</sub>	1.67 <sub>c</sub>	
(c) Perceiver Role X Task Difficulty			
Perceiver Role	Task Difficulty		
	High	Low	No Information
Actor	5.31 <sub>c</sub>	4.94 <sub>c</sub>	5.38 <sub>c</sub>
Observer	3.59 <sub>b</sub>	2.59 <sub>a</sub>	3.00 <sub>a</sub>

Note. The higher the mean, the greater the amount of money awarded to actors. Means within a panel sharing no subscripts in common differ significantly ( $p < .05$ ) by Duncan's multiple range test.



recommendations of reward were greater both in the high task difficulty and no task difficulty information conditions relative to the low task difficulty information condition. As seen in panel (b) of Table 23, the actor-observer difference held up on this measure. Although both actors and observers awarded the actor more money for success than failure ( $M_s = 5.39$  vs.  $2.89$ , respectively), actors relative to observers awarded themselves more money overall ( $M_s = 5.21$  vs.  $3.06$  respectively) and actors did not reduce as much the amount of money awarded themselves, even when they failed. Interestingly, however, neither Perceiver Role nor Task Difficulty information exerted the same impact on reward allocation as it did on measures of causal attribution and responsibility. First, although high task difficulty information under success led to the greatest reward assignment, the same was not true for failure. Secondly, both actors and observers similarly altered their assignments of reward with the level of task difficulty implied; furthermore, it appears as if actors and observers were allocating reward in the no information condition under the assumption that the task was difficult.

### Correlational Analyses

As seen in Table 24, the items related to perceived causes of the actor's performance were interrelated in a systematic fashion, e.g., attributions to general personal factors were positively correlated with participants'





Table 24

Principal Intercorrelations  
(Experiment 2)

Variable	1	2	3	4	5	6	7	8	9	10
1. Personal Attribution	-	-.70*	-.10	.09	.70*	-.52*	.39*	.68*	-.34*	.63*
2. Situational Attribution		-	.11	-.14	-.65*	.57*	-.30*	-.62*	.26*	-.68*
3. Credit/Blame (Not Rescaled)			-	-.76*	.03	.01	-.15*	-.12	-.25*	.03
4. Reward Assignment				-	.01	-.02	.26*	.13	.28*	.06
5. Ability Attribution					-	-.55*	.39*	.66*	-.39*	.61*
6. Task Difficulty Attribution						-	-.32*	-.56*	.28*	-.53*
7. Effort Attribution							-	.40*	-.10	.33*
8. Actor Responsibility								-	-.38*	.62*
9. Client Responsibility									-	-.37*
10. Credit/Blame (Rescaled)										-

Note. All correlations are based on  $n = 192$ . All correlations with a superscript (\*) are significant at  $p < .05$  or beyond.



attributions to ability and effort. Similarly, ascriptions of credit-blame (rescaled), perceptions of reward deservingness, and responsibility were interrelated in the expected manner.

Table 25 presents the intercorrelations among the major dependent measures for actor participants. As seen in Table 25, the measures of causal attribution and sanctioning evaluation were all significantly intercorrelated, with the exception of the measure of client responsibility. Actors credited themselves more and perceived themselves as more deserving of reward when they attributed the outcome to themselves. Conversely, actors took less responsibility and assigned themselves less reward when they perceived the outcome to be due to characteristics of the situation. The more specific attributional measures of effort, ability, and task difficulty also show a similar relationship to the rescaled credit-blame and reward assignment measures.

Table 26 presents the intercorrelations among the major dependent measures for observer participants. Table 26 also reflects the significant interrelationship among measures of causal attribution and sanctioning evaluation, although the relationship is not as strong for observers as it was for actors. Moreover, unlike the actors, observers' effort attributions were not significantly intercorrelated with any of the measures, whereas observers' attributions of responsibility to the client were significantly related to



Table 25  
Principal Actor Intercorrelations  
(Experiment 2)

Variable	1	2	3	4	5	6	7	8	9	10
1. Personal Attribution	-	-.79*	-.48*	.53*	.80*	-.62*	.60*	.75*	-.22*	.71*
2. Situational Attribution		-	.55*	-.61*	-.72*	.61*	-.57*	-.70*	.24*	-.75*
3. Credit/Blame (Not Rescaled)			-	-.55*	-.42*	.47*	-.39*	-.51*	.06	-.28*
4. Reward Assignment				-	.57*	-.55*	.62*	.55*	-.16	.55*
5. Ability Attribution					-	-.59*	.63*	.71*	-.27*	.70*
6. Task Difficulty Attribution						-	-.52*	-.61*	.26*	-.53*
7. Effort Attribution							-	.57*	-.12	.59*
8. Actor Responsibility								-	.09	.69*
9. Client Responsibility									-	-.41*
10. Credit/Blame (Rescaled)										-

Note. All correlations are based on  $n = 96$ . All correlations with a superscript (\*) are significant at  $p < .05$  or beyond.





Table 26  
Principal Observer Intercorrelations  
(Experiment 2)

Variable	1	2	3	4	5	6	7	8	9	10
1. Personal Attribution	-	-.57*	.31*	-.40*	.59*	-.42*	.10	.58*	-.47*	.51*
2. Situational Attribution		-	-.34*	.37*	-.55*	.53*	.07	-.49*	.29*	-.62*
3. Credit/Blame (Not Rescaled)			-	-.72*	.41*	-.31*	.09	.26*	-.49*	.35*
4. Reward Assignment				-	-.49*	.38*	-.03	-.31*	.62*	-.44*
5. Ability Attribution					-	-.51*	.10	.57*	-.52*	.45*
6. Task Difficulty Attribution						-	-.08	-.51*	.30*	-.55*
7. Effort Attribution							-	.12	-.09	-.07
8. Actor Responsibility								-	-.46*	.45*
9. Client Responsibility									-	-.37*
10. Credit/Blame (Rescaled)										-

Note. All correlations are based on  $n = 96$ . All correlations with a superscript (\*) are significant at  $p < .05$  or beyond.



their attributions of causality and ascriptions of deservingness. Observers' effort attributions were moderately high across conditions and there was little variance in these attributions. The low variance, of course, accounts for the lack of any significant correlation involving effort.

Table 27 presents the intercorrelations among the major dependent measure across actors and observers. As seen in the main diagonal of Table 27, actor-observer perceptions overall were not highly intercorrelated. The significant actor-observer correlation on the bipolar credit-blame (not rescaled) is of little import, given the questionable validity of this scale. What stands out in Table 27 are the negative actor-observer intercorrelations on the personal attribution and client responsibility measures, as well as the positive intercorrelation on the reward assignment measure. These intercorrelations suggest that, while actors and observers disagree about the causal locus of the actor's behavior, they are in considerably more agreement about actors' deservingness.

### Response Latency and Order Effects

An analysis of variance conducted on the response latencies to the personal, situational, credit-blame, and reward assignment measures revealed that the Perceiver Role and Order effects found on response latency in Study 1 were not reliable. Informing participants that their response



Table 27  
Principal Actor-Observer Intercorrelations  
(Experiment 2)

Variable X Actor	Observer Responses									
	1	2	3	4	5	6	7	8	9	10
1. Personal Attribution	-.29*	.17	-.47*	.66*	-.36*	.17	-.06	-.26*	.62*	-.24*
2. Situational Attribution	.31*	-.15	.54*	-.60*	-.42*	-.22*	.09	.24*	-.55*	.27*
3. Credit/Blame (Not Rescaled)	.34*	-.33*	.74*	-.64*	.33*	-.30*	.13	.21*	-.47*	.38*
4. Reward Assignment	-.43*	-.38*	-.55*	.69*	-.36*	.34*	.07	-.27*	.48*	-.41*
5. Reward Attribution	-.27*	.22*	-.46*	.60*	-.24*	.14	-.08	-.24*	.57*	-.31*
6. Task Difficulty Attribution	.34*	-.20*	.45*	-.54*	.42*	-.12	.05	.28*	-.56*	.35
7. Effort Attribution	-.33*	.31*	-.39*	.63*	-.39*	.38*	-.11	-.32*	.44*	-.33*
8. Actor Responsibility	-.29*	.28*	-.55*	.66*	-.39*	.20*	-.02	-.06	.59*	-.32*
9. Client Responsibility	.20*	-.09	.30*	-.17	.16	-.10	.03	.16	-.28*	.13
10. Credit/Blame (Rescaled)	-.38*	.28*	-.43*	.57*	-.43*	.22*	-.09	-.36*	.58*	-.11

Note. All correlations are based on  $n = 96$ . All correlations with a superscript (\*) are significant at  $p < .05$  or beyond. Column items refer to observer responses, whereas row items refer to actor responses.



latencies were being measured significantly reduced the variability and length of decision times. The results of this analysis revealed a significant main effect of Type of Question,  $F(3,216) = 29.55, p < .001$ , and significant interactions among Outcome X Task Difficulty X Response Order,  $F(2,72) = 3.17, p < .05$ , and Task Difficulty X Response Order X Type of Question,  $F(6,216) = 3.30, p < .004$  (See Appendix E.19).<sup>23</sup> The Type of Question main effect replicated the results reported in Study 1.

Specifically, the bipolar measure of credit-blame yielded the longest response latency ( $M = 8.23$ ), the reward measure yielded the shortest response latency ( $M = 4.76$ ), and the personal and situational attribution measures yielded intermediate response latencies ( $M_s = 5.55$  vs.  $7.30$ , respectively). Table 28 presents the mean response latencies partitioned by Outcome, Task Difficulty, and Response Order. This interaction is functionally uninterpretable given that the Order manipulation should have had an effect only in conjunction with the specific questions asked.

Table 29 presents the mean response latencies to the four questions as a function of Response Order and Task

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<sup>23</sup> This analysis also revealed significant interactions among Outcome X Sex X Type of Question,  $F(3,216) = 3.27, p < .02$ , and Task Difficulty X Response Order X Sex X Perceiver Role X Type of Question,  $F(6,216) = 2.77, p < .01$ . The means for these interactions are presented in Appendices F.5 and F.6.





Table 28

Mean Response Latencies to the Causal Attribution and Sanctioning  
Evaluation Questions as a Function of Outcome, Task Difficulty,  
and Response Order  
(Experiment 2)

Response Order	Outcome X Task Difficulty					
	Success			Failure		
	No			No		
	High	Low	Information	High	Low	Information
Causal Attribution First	5.01	6.78	7.52	7.09	5.67	6.20
Causal Attribution Last	6.73	7.53	6.03	5.86	5.13	8.00

Note. The higher the mean the longer the response latency (in secs).  
None of the above means differed significantly ( $p < .05$ ) by Duncan's  
multiple range test.



Table 29

Mean Response Latencies to the Causal Attribution and Sanctioning  
Evaluation Questions as a Function of Task Difficulty, Response  
Order, and Type of Question

	High Difficulty	Low Difficulty	No Information
Causal Attribution First			
Personal	3.21	6.84	5.64
Situational	7.00	6.92	8.24
Credit/Blame	8.17	6.89	8.75
Reward Assignment	5.81	4.23	4.81
Causal Attribution Last			
Personal	6.28	4.70	6.64
Situational	6.87	7.40	7.39
Credit/Blame	8.12	8.69	9.77
Reward Assignment	3.91	4.53	5.26

Note. The higher the mean, the longer the response latency (in secs).



Difficulty. Several noteworthy effects can be seen in this table. First, responses to the credit-blame question were facilitated by preceding attributional questions only in the low task difficulty condition. As might be expected, participants took longer to answer this question when they had been given no information about task difficulty. For the reward assignment measure, however, only when high task difficulty information was given did Order have an effect. This effect is the reverse of what was expected, i.e., longer response latencies occurred when the causal attribution questions preceded rather than followed this measure.

### Discussion

On the basis of the results obtained in Experiment 1 under public conditions, it was expected that actors would offer higher personal than situational attributions for success, but higher situational than personal attributions for failure. Observers, on the other hand, were expected to respond less benevolently than actors when the outcome was either success or failure. These tendencies would have been confirmed by a significant interaction between perceiver role and outcome. As expected, actors' attributions were affected strongly by outcome valence, whereas observers' attributions were affected less strongly by outcome valence. In fact, outcome valence led to reliably different attributions by actor and observers. For example, actors





made higher personal than situational attributions for success, but higher situational than personal attributions for failure. Observers neither manifested the tendency toward overattribution (Jones, 1979; Ross, 1977), nor were they more generous toward actors who succeeded or failed (Kelley & Michela, 1980). Actors' and observers' sanctioning evaluations of the actor's performance were consistent with actors' and observers' causal attributions. For example, actors credited themselves for success much more than they blamed themselves for failure. Although observers did not highly blame actors who failed, they also did not highly credit actors who succeeded.

These results replicated those reported in Experiment 1, in which perceivers' assessments of only failure were examined. The results of both experiments suggest that there were factors other than informational differences between actors and observers contributing to perspective differences in attribution and evaluation. An informational interpretation of the present results is weakened by the findings that actors relative to observers more positively evaluated their performance under both success and failure, even when they were given information that should have undermined a favorable evaluation. At the same time, it appears as though some type of motivational factor may have affected observers' attributions. It would thus be inappropriate to suggest that actors were evaluating their



behavior in a self-serving manner, with observers' reactions serving as an appropriate rational baseline against which to compare actors' responses.

Task difficulty information was expected to affect the extent to which success and failure were attributed to something about the actor's characteristics as opposed to characteristics of the situation. As expected, high task difficulty led to higher personal than situational attributions for success, but to lower personal than situational attributions for failure. Furthermore, low task difficulty led to lower situational than personal attributions for failure, but to higher situational than personal attributions for success. The finding that effort attribution was not significantly affected by task difficulty is understandable in light of when participants received the task difficulty information and in light of the nature of the task at hand. Participants were told about past students' success rates after, rather than before, the actor had completed the task. Furthermore, it seems reasonable to suggest that effort should have been perceived as relatively high in all actors, because they were to try to help another individual calm down and relax. In fact, had participants' attributions of effort differed as a function of task difficulty, questions could be raised about whether differential perceptions of effort rather than motivational factors led to the attributional conclusions



reached by participants (Miller, 1976).

Task difficulty similarly affected participants' ascriptions of credit-blame, perceptions of reward deservingness, and perceptions of actor responsibility. For example, successful actors were awarded more money, credited more, and perceived as more responsible when the task was presumably difficult rather than easy; unsuccessful actors were awarded less money, blamed more, and perceived as more responsible when the task was presumably easy than when the task was difficult. Thus, on these measures, participants responded in the predicted manner to task difficulty *qua* consensus information. They discounted personal causes when personal characteristics of the actor were not necessary to explain success or failure. When aspects of the environment could be construed as inhibitory of success or failure, this augmented their attributions to the actor (Kelley, 1972). Interestingly, task difficulty did not significantly alter ascriptions of client responsibility. This result is not understandable given the nature of the task difficulty information that participants received. It was made explicit in the experimenter's statement that either 15% or 85% of past students had succeeded in relaxing their respective clients. There is thus no reason why perceivers should not have focused on the client as one potential situational cause of actors' success or failure.





Comparing the attributions and evaluations of participants in the no information condition to those of participants in the two information conditions revealed that outcome valence significantly affected the extent to which perceivers in the no information condition similarly appraised the actor's performance. There was a fairly consistent tendency for participants in the failure/no information condition to make attributions and evaluations compatible with those made by participants in the failure/high task difficulty condition. Although less consistent, there was also a tendency for participants in the success/no information condition to make attributions and evaluations compatible with those made by participants in the success/low task difficulty condition. These response patterns may in part reflect a rational use of outcome information in the sense that people usually succeed on easy tasks and fail on difficult tasks. However, actors and observers were not consistently rational in their attributional assessments. Furthermore, especially when the outcome was failure, observers appeared to focus more on the actor as a cause than on the environment as a cause, even though either type of cause could have been invoked by them.

Task difficulty information affected attributions for positive and negative outcomes in the predicted manner. Confirmation of this prediction allowed an examination to be made of several more interesting questions. It was thought





that conditions of low causal ambiguity would result in three interrelated findings. First, it was expected that attributional egotism (Snyder et al., 1978) would be reduced when actors were given information that should have led to attributions incompatible with the self-serving attributional tendency. Second, it was expected that conditions of low causal ambiguity would have produced self-attributions more in line with findings in the equity research area. Third, it was expected that conditions of low causal ambiguity would reduce the actor-observer attributional difference. These expectations were not consistently supported. For example, the interaction among outcome valence, perceiver role, and task difficulty failed to reach a conventionally acceptable level of significance on the person attribution item. At the same time, however, this item, the situational attribution item, and the personal-situational attributional index yielded results that are of interest. Actors attributed their success more to personal than to situational factors when they were given high task difficulty information; the difference between actors' personal and situational attributions for success was reduced when they were given low task difficulty information. Furthermore, the low and no task difficulty information conditions did not lead to significantly different attributions, although there was a tendency for actors to make greater personal than situational



attributions for success in the no relative to the low task difficulty condition. Actors in the success condition thus responded in accordance with the idea that low causal ambiguity would reduce the self-serving attributional tendency. Actors attributed their failure more to situational than personal factors in the high task difficulty condition; low task difficulty reduced their tendency to deny personal causal responsibility for failure. Interestingly, however, the attributions of unsuccessful actors in the no and high task difficulty condition did not differ significantly. The results with actors are compatible with the idea that actors make ego-defensive attributions, i.e., attributions that will prevent the lowering of self-esteem. However, the results with actors are incompatible with the idea that actors will make ego-enhancing attributions, i.e., attributions that will heighten self-esteem. These results and their implications for ego-defensiveness and ego-enhancement are compatible with findings in the self- and interpersonal evaluation literature, in which it has been found that actors seem to be more concerned with protecting than with enhancing self-esteem (e.g., Schneider, 1969).

The attributions made by observers were not very favorable toward the actor, especially in the no information condition. Observers appropriately altered their attributions for success and failure when given low task



difficulty information. And, although observers' attributions were affected in the predicted fashion by high task difficulty information, they seemed less responsive to this information than to low task difficulty information. For example, observers made nonsignificantly higher personal than situational attributions in the success relative to the failure condition when given high task difficulty information.

Comparing actors' with observers' attributions as a function of task difficulty revealed that perspective differences persisted in spite of the provided task difficulty information. Thus, the expectation that low causal ambiguity would reduce between-perspective differences was on the whole unsupported. The only evidence remotely consistent with this expectation was that actors' and observers' ability attributions were more compatible in the low task difficulty relative to the high and no task difficulty information conditions. This effect is obscured, however, by the potent effect of outcome valence on actors' and observers' general attributions.

Task difficulty failed to exert as much impact on participants' sanctioning evaluations of success and failure as it did on their causal attributions. <sup>24</sup>

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<sup>24</sup> Outcome (range = 7% to 77%) accounted for a much larger percentage of the variance in actors' causal attributions and sanctioning evaluations than either task difficulty or task difficulty in interaction with outcome (range = 1% to





Although not significant, the measure of credit-blame revealed that actors reduced their ascriptions of credit for success but increased their ascriptions of blame for failure in the low task difficulty information condition relative to the high and no task difficulty information conditions. The pattern here was similar to the pattern obtained for actors' causal attributions. Observers more harshly evaluated the actor overall, but they too were responsive to task difficulty information in the expected manner. Task difficulty failed to modify participants' perceptions of reward deservingness in interaction with outcome and perceiver role. Actors' perceptions of reward deservingness were unaffected by task difficulty information. Overall, actors awarded themselves more money for success than failure. Observers were more responsive to task difficulty information; specifically, they awarded the actor more money when they had been told that the task was difficult than when they were given no information or low task difficulty information.

These results suggest that there are potential motivational factors operating on both actors and observers.

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<sup>24</sup>(cont'd)26%). While outcome also accounted for a large percentage of the variance in observers' causal attributions and sanctioning evaluations (range = 0% to 74%), outcome in interaction with task difficulty also accounted for more of the variance in their responses than in the actors' responses (range = 0% to 40%). The two measured perceptions least affected by outcome or task difficulty were attributions to effort and ascriptions of client responsibility.



Providing information that should guide or direct the attributions made is unlikely to reduce between-perspective differences in attribution or evaluation. The actor results are consistent with other results showing that actors are resistant to information that would alter the positivity of their self-evaluation (Eisen, 1979; Fontaine, 1975; Stevens & Jones, 1976). Although actors somewhat reduced their personal attributions for success and increased their personal attributions for failure under conditions of low task difficulty, the shift was not remarkable. The present results, like those obtained in Experiment 1, suggest that concerns with self-esteem enhancement, protection, or maintenance are in part of function of the public nature of the context. At the same time, however, actors' evaluations of their task performance suggest that factors in addition to self-esteem concerns were operating. Actors were faced with a task on which they had had little prior experience and that had implications for the well-being of another individual. Because of the interpersonal nature of the task, actors were likely very motivated to perform the task to the best of their ability and effort. It may be that actors viewed their performance as compatible with the demands of the task situation, irrespective of what factors actually contributed to their success or failure on the task. This may have reduced their emphasis on task difficulty information when they were asked to assign



rewards to themselves. This analysis implies that there may be a bifurcation between the causes of task performance and perceptions of deservingness in certain contexts, e.g., in interpersonal contexts. In terms of Kelley's (1971) analysis of moral evaluation, actors may be reality evaluation oriented. That is, they may focus more on outcome valence than on the causes of task performance. It would be interesting to assess within the same study whether the relationship between causal attribution and evaluation is stronger in less relative to more interpersonal task situations.

The observer results were somewhat surprising in light of past research that has shown observers to be responsive to provided causally-relevant information (cf. Frieze, 1976) and in light of research showing that observers rather generously evaluate actors (cf. Zuckerman, 1979). As discussed previously, however, the nature of the task viewed by observers may have contributed to their rather harsh treatment of the actor. The present results are compatible, for example, with those in the responsibility attribution area that show that observers ascribe high responsibility to actors for accidentally caused negative outcomes, but less responsibility to actors for positive outcomes (cf. Ross & DiTecco, 1975; Vidmar & Crinklaw, 1974). In this research area, primarily interpersonal task contexts have been examined. Conversely, much of the research on observer





attribution has used more intrapersonal tasks (e.g., performance on an anagrams task), in which another person's well-being is not at issue. In these latter instances, observers may feel that they can afford to be generous toward the actor. The suggestion being made here is that, regardless of the outcome, observers may have felt that inexperienced actors *ought* not to have even agreed to counsel the client. Observers may have taken the position that the risks involved in counselling the client were too great to warrant compliance with the experimenter's request. This attitude on the part of the observers may have overshadowed their willingness to evaluate the actor positively.

This interpretation is consistent with one rather interesting finding in the present study. Observers' attributions of ability, but not their attributions of effort, were significantly correlated with their perceptions of reward deservingness and their ascriptions of credit-blame. This finding was quite surprising in light of past research that has shown observers' effort attributions to predict better their evaluations of another's performance (cf. Weiner, 1973; Weiner et al., 1978). Within the context of the interpersonal paradigm employed here, however, effort may have been less salient to observers than the actor's ability to perform the task. Again, observers may have reasoned that the actor should not have agreed to





perform the task unless (s)he was very confident in his/her ability.

Nevertheless, the attributions and evaluations made by observers in the present experiment were more harsh than would have been expected on the basis of past research that has used the client-therapist paradigm (e.g., Harvey et al., 1974). There are several procedural differences between the present experiment and past research that may partly account for the different results. In the present studies, actors and observers were physically separated from one another, whereas observers in Harvey et al.'s study were seated in the same room with the actor. Physical proximity with the actor may have caused observers to empathize more with the actor in Harvey et al.'s study relative to the present study. Second, observers in the present study were focused both on the client and the actor, whereas in Harvey et al.'s experiment observers, like actors, were focused on the client. Past research has found that observers who are asked to assume the perspective of the actor (either through actual visual perspective manipulations or through instructions to empathize with the actor) make attributions more correspondent with the attributions actually made by actors or that would be expected of actors (e.g., Storms, 1973; Taylor & Fiske, 1975). Finally, observers were making their evaluations within a more explicitly public condition, in which observers may have been trying to mimic either the



actor's assessments or the psychologists-supervisors' assessments of the actor's performance. The replication experiment provided results compatible with this idea.

It would be interesting to determine in future research whether the nature of the task context significantly affects the extent to which actors and observers rely on outcome valence and the available causal information. Very little research has examined this idea with observers (e.g., Weiner & Peter, 1973) and no research has examined this idea within the same study with actors. It would also be interesting to determine whether the observers own level of involvement in the situation affects the extent to which they rely on outcome valence and causally-relevant information and the extent to which they evaluate actors harshly. There is some empirical precedence for the suggestion that observers respond less harshly when they too will perform a similar task (Chaikin & Darley, 1973; Sherrod & Farber, 1974). In the present study, observers may have responded less harshly had they expected to counsel the client.



## CHAPTER IV

### Summary and Conclusions

Participants in the present experiment were asked to make causal attributions for, and sanctioning evaluations of, actors' performance on an interpersonal task, i.e., a task in which the actor's behavior had implications for the well-being of another individual. The results of both experiments indicated that attribution was reliably related to participants' evaluations of task performance. These results and the failure to find consistent effects of response order suggest that evaluations of task performance are affected reliably by the perceived causes of success and failure. It would be interesting to determine in future research if changes in the interpersonal vs. intrapersonal nature of the task affected what standards of evaluation are salient to the perceiver. For example, the causal antecedents of an outcome may be less important than outcome valence or extremity in determining the resultant sanctioning evaluations if the behavior observed was of an interpersonal nature. This pattern of results would be consistent with Kelley's (1971) *reality* standard of moral evaluation. Alternatively, the causal antecedents of an outcome may be very important in determining the sanctioning evaluations offered for intrapersonal behaviors. This pattern of results would be compatible with Kelley's *achievement* standard of moral evaluation.





The results of both experiments also revealed that evaluation context significantly affected the attributions and evaluations of actors and observers. Actors' failure to make self-serving attributions under private conditions indicates that there is a need to re-examine the assumption that actors are motivated to protect their private self-esteem. Furthermore, the finding that self-attributions and -evaluations in the public condition were compatible with a self-aggrandizing response tendency indicates a need to consider whether these response tendencies are viewed as self-aggrandizing by actors and whether actors perceive that others share this or a different view.

The fact that observers responded harshly toward actors could be interpreted as support for the idea that observers felt threatened by the actors' outcome and were responding in a manner designed to undermine this threat (e.g., Shaver, 1970). If this observation is valid, then past research may have underestimated potential motivational influences on even uninvolved observers. There may be a need to reconsider whether defensive processes on the part of observers are engaged only when the observer is an active participant in the situation or when actors' and observers' outcomes are negatively correlated. At the same time, other aspects of the results suggest that defensiveness is not the best way to interpret observers' reactions to actors. Most



notably, observers responded less harshly toward actors in the private condition of the first experiment and the replication experiment. These results suggest that observers were less affected by defensive concerns than they were by self-presentational concerns. This suggestion, and the idea that the interpersonal vs. intrapersonal nature of the observed behavior will affect the standard adopted by perceivers, should be investigated in more detail.

The traditionally reported actor-observer difference was found in a public evaluation context condition only. This result suggests that the actor-observer difference may be more of a function of the impressions perceivers wish to make on others, than of a motivated bias by actors to protect or enhance their private self-esteem or of a bias on the part of observers to be moderate in the attributions made. The actor-observer difference was shifted significantly in the private condition, in which perceivers did not expect as much that they would be evaluated. Concerns for accuracy and modesty were ruled-out as explanations of the effects of evaluation context. It was suggested that more research is needed to determine how variations in the nature of the public evaluation context affects perceivers' attributional and evaluational assessments. Also left for future research is the determination of how and why perceivers' public and private assessments may differ.



The results of the second experiment revealed that self-serving attributional biases were reduced by conditions of low causal ambiguity, but were facilitated by conditions of high causal ambiguity. These results supported Snyder et al.'s (1978) view of attributional egotism. Furthermore, consistent with the causal ambiguity interpretation of conflicting findings in the equity and self-attribution research areas, actors offered sanctioning evaluations compatible with the provided causally-relevant information. Low causal ambiguity also appropriately affected observers' attributions and evaluations, a result that is consistent with past research (cf. Frieze, 1976; Weiner et al., 1978)

Despite confirmation of these ideas, the actor-observer difference was not reduced by conditions of low causal ambiguity. This finding suggests that both attributional and evaluational conflict will be difficult to resolve by an outside agent who disambiguates the causal context for perceivers. In addition, perceivers' inaccurate attributional projections suggests that attributional conflict between actors and even uninvolved observers will not be easily resolved. Observers seems to be 'aware' of the various response tendencies that past research suggests should exist within actors. Within the present context, however, observers were simply wrong. A task for future research is to assess why observers make the assumption that actors will try to protect or enhance their self-esteem





under private conditions. Related to this task, more precise assessments need to be made of what conditions engage various concerns (e.g., accuracy, modesty, defensibility) on the part of actors and observers.

Perhaps the most important issue raised by the present research is how the nature of the paradigms employed in social psychological research may affect the obtained results and the conclusions drawn about the phenomenon of interest. Many different paradigms have been used in the work on self- and other-attribution. Many of the conflicting results can be traced to these different paradigms. If one thing is clear from the present results, it is that the nature of the context may importantly affect the attributions and evaluations expressed and believed by participants. More attention needs to be given to what factors contribute to the significant between-paradigms variance. This, unfortunately, is not what typically happens in social psychological research. Rather attention is usually focused on minimizing the error variance introduced by one paradigm relative to another.





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## Appendix A.1

### Audiotaped Instructions to Participants

#### (Experiment 1)

"Please listen carefully to my instructions. This experiment is one of a series of experiments being conducted jointly by the Psychology Department and the University of Alberta Student Counselling Service. Every type of health care, as you know, has grown increasingly expensive over the past few years. The Federal Department of Community Mental Health, through Student Counselling, is studying ways of reducing expenses for mental health services while maintaining a high quality of care. Community Mental Health decided that the first place to try to cut expenses was in the type of care provided for people with relatively minor problems -- for example, people who would come to walk-in type counselling centers like the University of Alberta Student Counselling Service. Of course, in any type of counselling situation, counsellors spend time with the client. Up until now these counsellors have had at least a master's or a doctorate degree and of course they have commanded fairly high salaries. One question being asked by Community Mental Health is whether the same quality of care can be provided by volunteer counsellors who have had a minimum of professional training. There is, in fact, some research on this idea and the major findings show that volunteer counsellors who have had experience with a problem





like the client's actually perform just as well as trained clinicians. We are following up these findings in this study; our primary question being how well students with minor problems can be treated by student counsellors.

Most of the students who come to Student Counselling come to work out their problems either with interpersonal relations or anxiety about course work. To help these students, Student Counselling usually uses a process called guided desensitization. Briefly, guided desensitization refers to a process where a counsellor verbally and gradually guides the student in thinking about aspects of the problem, while helping the student calm down and relax. It has been found that getting the student to relax and to simply imagine overcoming aspects of the specific problem can be the key to working out the problem. That is, counsellors who can get people to relax in just a short period of time perform well even if they have had no background information about the client and are not in physical face-to-face contact with the client. In this study we would like for one of you to take the role of a student counsellor and deliver a set of desensitization instructions to a student who has a problem with test anxiety. We would like the other person to take the role of an observer watching the counsellor deliver these instructions to a text-anxious student. As you can see on your table, each of you has been randomly assigned to either



the student counsellor or the observer role. We need both student counsellors and observers in the study to assess different perspectives on our research problem.

Student Counselling has arranged for some of their clients to take part in the study. All of the referred clients are students like yourselves, but they have some problems coping with examination situations. In over 90% of the cases this anxiety is ill-founded. That is, most of these students are of at least average intelligence and they actually need not fear failing their exams. The referred clients have been fully informed about the nature of the study and they are aware of the fact that students will be administering the desensitization instructions. They have volunteered to participate primarily because they know that fellow students, who should be able to relate to being anxious about exams, are going to try to help them relax. The client scheduled for this session should arrive soon and will be seated at the desk that you will see over your monitors. Because this situation is potentially embarrassing to the client, we try to insure that the client interacts primarily with the experimenter. This is why we have scheduled the client to arrive after all participants have arrived and have been seated in their individual rooms. If either of you happens to know the client who arrives for this session, I will ask you to refrain from completing the experiment. In the event of prior acquaintanceship, I will



give you another task to complete.

When the client arrives I will attach a set of electrodes to the client's left hand. These electrodes are interfaced with an auxiliary electropolygraph recorder designed to measure muscular relaxation. This measure is an indirect, but reliable measure of psychological relaxation. This means that the greater the level of muscular relaxation exhibited by the client during the course of the therapy, the more positive the effects of the therapy. Conversely, the greater the tension manifested the more negative the effects of the therapy. Both of you have a meter on your table which will serve as an indicator of how relaxed or tense the client becomes during the course of the therapy. Depending on how the therapy session goes, the client may end up feeling very relaxed, very tense, or somewhere in between tense and relaxed. A high level of relaxation would be indicated by the needle moving toward the number 1 on your scale, whereas a high level of tension would be indicated by the needle moving toward the number 10 on your scale. Right now both of your meters are off. I will connect your meters to the electropolygraph recorder near the beginning of the counselling phase. Before we begin the counselling phase, I will be collecting what we call baseline relaxation data from the client so that we can make sure that we don't begin the counselling phase until the client's level of muscular relaxation is just about at the





middle of the scale.

Two preliminary tasks must be completed, however, before the counselling session begins. First, we need a measure of the counsellor's natural level of social sensitivity. In a minute I will give the counsellor a test to complete. This test will measure the counsellor's ability to relate to people on an interpersonal level. The social perceptiveness test is a very well-validated measure of social sensitivity. We need data from this test to be able to see how effective the counselling itself is in relation to the counsellor's natural ability to relate to people. After the counsellor has completed this test, I will give the counsellor a description of the four most successful types of available desensitization instructions from which the counsellor is to choose the one with which the counsellor personally feels the most comfortable and the one that the counsellor personally believes will be the most effective. Counsellor: You have complete choice over the counselling instructions that you use, so please make this choice very carefully.

Before I distribute these materials, I would like to say some things about the actual counselling phase. Before the beginning of the counselling phase, I will give the person designated to be the counsellor a copy of the counselling instructions that that person chose. The outline will consist of several major points. The number of



major points on the outline will depend on the particular outline chosen by the person designated to be the counsellor. In any event, each major point should be made in the order in which it appears on the outline. After each point is made, the counsellor should pause to look at the meter and make a mental note of what effect the counselling has had on the client up to that point in time. It is important that the counsellor elaborate on each of the points by adding whatever information the counsellor believes is necessary to reinforce the meaning of the point to the client. In other words, the counsellor may want to restate the point in a slightly different manner or with a slightly different emphasis. During the counselling phase the counsellor should speak clearly into the microphone, although there is no need for the counsellor to hold the microphone. The counsellor should spend no more than three minutes on each page of the counselling instructions. After the counsellor is finished with these instructions, the counsellor should ask the client how he or she feels. As soon as this one question had been answered, I will terminate the counselling session immediately and after this I will dismiss the client from the experiment. Before we begin the counselling phase I will give the counsellor a signal to begin the counselling instructions. Please do not begin until I have given the signal.



At this time I am going to distribute the social perceptiveness test and a copy of the available counselling instructions. The person designated to be the counsellor is to complete both of these tasks. I will also give copies of these materials to the observer, although the observer is not to complete these. I will distribute these materials in a moment."

"The initial tasks are finished, I have several other points to make before we begin the counselling phase. As you can see over your monitors, the client has been seated in a comfortable chair and is awaiting the counselling phase. As you can see on your meters, the client's level of muscular relaxation is just about at the middle of the scale -- meaning that the client is neither completely relaxed nor completely tense at this time. The counsellor should prepare to begin the counselling instructions. Counsellor, please remember that you are to spend no more than one minute on each point of the outline and you are to complete the entire outline. It is important for you to pause for about 10 seconds after each point is made to look at your meter so you can see how the client is feeling at that point in time. Finally, after you have asked the client the question about the client's feelings I will dismiss the client from the experiment and we will go on to the next experimental phase. I have to switch the audio system over to the counsellor's microphone so the counsellor should





count very slowly, but silently to twenty and then begin the counselling instructions."

"As you can see over your monitors, the client has been dismissed from the experiment. At this time we are going to evaluate the counsellor's performance on the counselling task. In a few minutes, several questions will appear on your screen. The experimenter will read each question aloud. Please read the question along with the experimenter. Each question will appear on your screen for a fixed period of 30 seconds. After each question has been read to you, please think about how you want to answer the question. Then, after the 30-second period elapses, please indicate your response by depressing one of the seven keys on your response panel. There is no way to correct a mistake on your response panel, so please be sure to depress only that key that best represents your answer.

Some of the questions refer specifically to the student counsellor. These questions should be interpreted by the student counsellor as referring to him or her and should be interpreted by the observer as referring to the person that delivered the counselling instructions. Other questions are the reference you. These questions should be interpreted by the student counsellor as referring to him or her and by the observer as referring to him or her. Please remember that you are not to answer a question until the entire question has been read to you and until you are sure of how you want





to respond. Finally, remember that you are to answer every question." (either the public or the private evaluation context instructions were delivered at this point in time)



## Appendix A.2

### SOCIAL PERCEPTIVENESS SCALE

#### INSTRUCTIONS

This is a test of your ability to discern a person's characteristics from information provided using a standard clinical format. We have obtained copies of case histories for you to read and assess. Your results will be compared to those provided by working counsellors who have received the same information that you have received. We have always found in the past that a person's social perceptiveness score is highly correlated with the person's general level of ability, that is, the more socially perceptive a person is, the better that person also performs on a variety of aptitude tests.

This is a *timed* test. I will give you three minutes to work on the case.

At this time you are to read the attached case. After you read the case, you are to complete the attached questions. Work quickly and try to be as incisive and accurate as you can.



## Case No. 213

*Background Information:*

Name:	Andrew
Age:	26
Sex:	M
Marital Status:	single
Date of Birth:	July 21, 1953
Place of Birth:	Vancouver, B.C.
Occupation:	Grad Student (Phys. Ed.)
Education:	Grad Student (Phys. Ed.)
Father's Name:	Howard
Father's Occupation:	Doctor
Mother's Name:	Ruth
Mother's Occupation:	Teacher

*I. Personality*

Andrew's days were full of events from most of which he received satisfaction and pleasure. His mood could best be described as playful. From rare experiences of dejection his spirits tended to bounce back quickly. He once specified the condition most conducive to furious anger: "when I think some injustice has been done."

*II. Intellectual Characteristics*

Standard intelligence tests placed Andrew in the *very superior* category with an I.Q. of 130; performance on different parts of the test showed a fairly even distribution of skills with no areas of marked weakness.

*III. Social Skills and Attitudes*

It was plain from his high school record and from our own observation of his behavior that Andrew was unusually sociable. Companions and friends were involved in almost everything that he did; in fact, he expressed a definite distaste for being alone, and it was the memories of loneliness as a child that upset him the most about his childhood. His friendships with both men and women tended to be of long duration.





IV. *Evaluations of Andrew by some of his acquaintances.*

*Evaluation #1*

*Name:*

*Occupation: Professor of History*

"Andrew was a student in one of my second-year university history classes. The main thing that struck me about him was his talkativeness. He was very active in class discussion, and generally prepared his assignments conscientiously. One thing that he did that troubled me somewhat, however, is that he was often somewhat rigid in his views and refused to listen to the ideas of the other students. This is a problem that he will probably overcome as he matures. He asked me to write him a recommendation for graduate school and I gave him a fairly good one.

*Evaluation #2*

*Name:*

*Occupation: Physio. Therapist.*

"I dated Andrew for about 8 months during our last year at University. We saw each other steadily during this time. Then, he began to lose interest. He said that he thought it would be better for both of us if we dated others. This made me feel very bad at the time, but in the long run, I think he was right. We really weren't very well suited for each other. He was often inconsiderate and rude, and we often had difficulty communicating. Also, his views on sex were somewhat exploitative--I really resent that now."



## SOCIAL PERCEPTIVENESS SCALE

*Official Questions.* Summarize your impressions of the person described within the attached case number; try to be as incisive and accurate as you can.

1. How politically liberal or conservative do you think the person is?
  - a. very liberal
  - b. about as liberal as most people
  - c. very conservative
2. What do you estimate the person's self-esteem to be?
  - a. very high
  - b. about average
  - c. very low
3. Do you think that the person is capable of dealing with severe criticism from superiors?
  - a. definitely
  - b. about as much as most people
  - c. definitely not
4. If the person found a wallet on the street containing about \$20.00, would the person return the wallet?
  - a. definitely
  - b. the person would probably return the wallet, but keep the money
  - c. definitely not
5. How do you think the person feels about abstract art?
  - a. would dislike it very much
  - b. would like it as well as most people
  - c. would like it very much
6. Would you say that the person is the kind of person who could be manipulated by others?
  - a. definitely
  - b. about as much as most people
  - c. not at all



7. Is this the type of person who would brag about his/her accomplishments?
  - a. Yes, probably a lot.
  - b. Yes, but only about as much as most people.
  - c. No, probably never
8. How do you think the person would feel if he/she met a group of people for the first time?
  - a. very comfortable
  - b. about as comfortable as most people
  - c. very uncomfortable
9. How comfortable would this person feel living in a large city (e.g., Montreal, Toronto, New York, Chicago)?
  - a. very comfortable
  - b. about as comfortable as most people
  - c. very uncomfortable
10. How likely is it that this person will have severe psychiatric problems?
  - a. very likely
  - b. very unlikely



## Appendix A.3

## AVAILABLE COUNSELLING OUTLINES

STUDENT COUNSELLOR: \_\_\_\_\_ SEX: \_\_\_\_\_

CLIENT: \_\_\_\_\_

SESSION #: \_\_\_\_\_

DATE: \_\_\_\_\_

The following is a brief description of the four types of counselling guides that can be employed by you during the counselling session. Please read over the descriptions and select the outline: (a) that you would feel most comfortable using and (b) that you believe would be the most effective outline to use with you as the counsellor.

Put an 'X' next to the approach you wish to use.

\_\_\_\_\_ 1. *Direct Emotional Approach*

A procedure in which the client is directly led by the counsellor to an immediate confrontation with his/her irrational fear.

\_\_\_\_\_ 2. *Indirect Emotional Approach*

A gradual approach to dealing with one's phobias in which the client is carefully guided by the counsellor.

\_\_\_\_\_ 3. *Direct Rational Approach*

An immediate confrontation with the phobic reaction is brought about on a conceptual level under the counsellor's direction.

\_\_\_\_\_ 4. *Indirect Rational Approach*

A procedure in which the client is guided by the counsellor to a gradual conceptual understanding of his/her irrational fear.





## Appendix A.4

### COUNSELLING INSTRUCTIONS

Please read over these instructions. When you deliver these instructions you are to make each point deliberately and in the order in which it appears in the outline. You may restate the point or make it in a slightly different way and/or with a slightly different emphasis, because factors like tone of voice can be crucial in relaxing the client.

#### *POINT ONE:*

*Therapist:* In this session, I am going to try to help you understand and cope with your emotions. In particular I will assist you in coping with your feelings about taking tests. Now, I would like you to relax your whole body. Take a deep breath and try to make your body completely limp and relaxed ...

(*Possible additions:* (1) Let your arms fall limp into your lap; position your legs so that they are comfortable. (2) Close your eyes; take a very deep breath and feel how tense your chest becomes. Now exhale slowly. Feel the warm sensation of relaxation across your chest. (3) Try to feel as calm and pleasant as possible.)

#### *POINT ONE:*

*Therapist:* You should be starting to feel relaxed now. I am going to present a number of scenes to your imagination which you should picture very clearly in your mind. First, I want you to imagine a beautiful tropical beach scene, a mountain scene, or some place you have been where you felt great calm, tranquility, and enjoyment. Now, just relax ...

(*Possible additions:* Mention specifics of the imagined scene, e.g., sun brightly shining, warm refreshing breeze, minimal extraneous noises, etc.)

#### *POINT THREE:*

*Therapist:* Now imagine that you have just begun a new course of your choice. The professor has explained that the first test will be in one month. You feel secure and motivated because you know that the best way to prepare for a test is a gradual accumulation and repetition of the material over an extended period of time. You feel that you have the advantage. Now take a deep breath. You feel relaxed and



perfectly at ease ...

(Possible additions: remind patient of the previously mentioned relaxing scenes; remind patient to breathe deeply and exhale slowly.)

#### POINT FOUR:

*Therapist:* Now imagine that you are home studying in the evening. It is two weeks before the exam. You are breathing normally. You have kept up with the assignments and you feel very secure. Now it is one week before the exam. Relax, you are in complete control ...

(Possible additions: Add whatever you believe is necessary.)

#### POINT FIVE:

*Therapist:* Your whole body is limp. You feel as if you could float away. It is four days before the exam. You feel no threat. You look forward to the chance to demonstrate your scholastic ability. Relax ...

(Possible additions: Add whatever you believe is necessary.)

#### POINT SIX:

*Therapist:* It is now the day before the exam. You have already set aside time for a general review. Your thinking is steady and deliberate. It is now the night before the exam. You have studied thoroughly and you sleep very soundly, because you are confident and secure. Relax, relax. As you rise in the morning, you feel refreshed and sure of yourself. There is no need to hurry. You have planned plenty of time. Take a deep breath ...

(Possible additions: Add whatever you believe is necessary.)

#### POINT SEVEN:

*Therapist:* On your way to the university you are at ease. You're walking across campus towards the building where the examination will be held. The building becomes larger as you walk toward it. As you enter the building you still feel calm. You remember the tranquil scene you imagined earlier and you feel relaxed. You wait before the unopened doors of the examination room. You are calm ... You are now awaiting the distribution of the exam. Breathe deeply ...

(Possible additions: Add whatever you believe is necessary.)



*POINT EIGHT:*

*Therapist:* The professor arrives with the stack of examination papers and begins to distribute them. You watch the other students as they receive their examinations. Finally, you receive your examination. You feel an inner glow of confidence. You are not afraid. Close your eyes, inhale and exhale slowly several times. Relax ...

*(Possible additions:* Emphasize feelings of pride, peace, and accomplishment that patient should experience.)

*POINT NINE:*

*Therapist:* You look at the examination lying face down before you. You're wondering if you studied the right things and if you'll remember all the answers you memorized the night before. You're also wondering if your classmates studied longer than you did. But you feel calm because you know you've studied as hard as you could.

*(Possible additions:* Add whatever you believe is necessary.)

*POINT TEN:*

*Therapist:* You turn the paper over and read the first question. (Pause briefly.) You know that you can answer this question. As you write your response, you feel calm and proud of yourself. You proceed to answer the other questions on the examination. While some of your responses are better than others, you feel confident that you will receive a good grade. You feel relaxed and happy as you turn in your paper.

---

Pause for a moment. Then inform the patient that the session is finished. Finally, ask the patient to verbalize how (s)he feels.







## Appendix A.5

### Dependent Measures

#### (Experiment 1)

1. "Now that the counselling session is over, to what extent do you feel that the outcome of the counselling session was a success?" (1 = not very much; 7 = very much).

2. "How much choice was the student counsellor given over which counselling instructions could be used? (1 = not very much 7 = very much).

3. "To what extent did the experimenter indicate that you would be verbally discussing your answers to the evaluation question with a team of psychologists?" (1 = not very much; 7 = very much).

4. "To what extent did you feel a need to be cautious in your interpretation of the student counsellor's performance on the counselling task?" (1 = not very much; 7 = very much)

5. "To what extent did you feel a need to be modest in your interpretation of the student counsellor's performance on the counselling task?" (1 = not very much; 7 = very much).

6. To what extent did you feel someone would evaluate your interpretation of the student counsellor's performance?" (1 = not very much; 7 = very much).

7. "To what extent was the outcome of the counselling session due to how the student counsellor delivered the



counseling instructions?" ( 1 = not very much; 7 = very much).

8. "To what extent was the outcome of the counseling session due to circumstances beyond the student counselor's control?" (1 = not very much; 7 = very much).

9. "How much do you feel the student counselor should be credited (if the student counselor succeeded in relaxing the client) or blamed (if the student counselor failed in relaxing the client) for the outcome of the counseling session?" (1 = should be credited a lot; 7 = should be blamed a lot).

10. "How much do you feel the student counselor should be credited (if the student counselor succeeded in relaxing the client) or blamed (if the student counselor failed in relaxing the client) for the outcome of the counseling session?" (1 = not very much; 7 = very much).

11. "How personally responsible do you feel the student counselor is for the outcome of the counseling session?" (1 = not very much; 7 = very much).

12. "How personally responsible do you feel the client is for the outcome of the counseling session?" (1 = not very much; 7 = very much).

13. "Student counseling has offered to pay the student counselor in this session a \$7.50 fee for his/her services. Indicate below the size of fee which you think the student counselor deserves for his/her performance on the



counselling task. That is, you should reward him/her an amount consistent with how much you feel his/her performance was worth (1 = \$1.50; 7 = \$7.50, in one dollar increments).



## Appendix A.6

### Public and Private Evaluation Context Instructions

#### (Experiment 1)

"As you can see over your monitors the client has been dismissed from the experiment ... (instructions regarding use of response panel, etc. given) ...

*PRIVATE:* Please note that all aspects of your behavior and your interpretation (that is, evaluation) of the student counsellor's performance will remain completely anonymous. That is, neither I nor any of the team of psychologists associated with the study will see your answers to the questions that will appear on your screen, because your answers are being fed directly into the computer. Contrary to what you may have been told in your psychology 260 class, this is not standard operating procedure in all experiments. That is, normally in this study a team of psychologists visits each session to evaluate the entire session and the participants in it. To facilitate their evaluation, they normally verbally discuss with each participant individually, the participant's answers to the questions. Because of the time constraints involved in running the study, however, we will not do this. So, after the evaluation phase has been completed, I will dismiss each of you separately from the experiment. We will now proceed to the evaluation phase."





*PUBLIC:* Please note that contrary to what you may have been told in your psychology 260 class, there are some experiments where no aspect of your behavior remains anonymous. This means that no aspect of your behavior or your interpretation (that is, evaluation) of the student counsellor's performance will remain anonymous in this experiment. That is, both I and the team of psychologists associated with the study will see your answers to the questions. The team of psychologists is here now to evaluate the entire session and the participants in it. They will see your answers to the questions over the teletype machine connected to the computer into which your answers are being directed. To facilitate their evaluation, they will meet with each of you *individually* (verbal emphasis) to verbally discuss with you your answers to the questions. After this is finished, I will dismiss each of you separately from the experiment. We will now proceed to the evaluation phase."



## Appendix B.1

## Summary of Analysis of Variance on Recall of Verbal Discussion

## Manipulation Check

## (Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	219.010	84.437**
B (Response Order)	1	.011	<1
A X B	1	.094	<1
S(AB) (Error)	44	2.594	
C (Perceiver Role)	1	.511	<1
A X C	1	3.012	<1
B X C	1	.844	<1
A X B X C	1	.012	<1
C X S(AB) (Error)	44	1.685	

\* $p \leq .05$   
 \*\* $p \leq .001$



## Appendix B.2

Summary of Analysis of Variance on Perceptions of Extent to which  
Participant would be Evaluated  
(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	21.094	7.543*
B (Response Order)	1	.844	<1
A X B	1	1.760	<1
S(AB) (Error)	44	2.796	
C (Perceiver Role)	1	3.760	1.097
A X C	1	3.017	<1
B X C	1	2.398	<1
A X B X C	1	.511	<1
C X S(AB) (Error)	44	3.429	

\* $p \leq .05$   
 \*\* $p \leq .001$





## Appendix B.3

Summary of Analysis of Variance on Feelings of Cautiousness  
(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	8.760	2.369
B (Response Order)	1	3.891	1.05
A X B	1	.510	<1
S(AB) (Error)	44	3.698	
C (Perceiver Role)	1	2.344	<1
A X C	1	3.017	<1
B X C	1	.260	<1
A X B X C	1	.001	<1
C X S(AB) (Error)	44	3.384	

\* $p \leq .05$   
 \*\* $p \leq .001$



## Appendix B.4

Summary of Analysis of Variance on Feelings of Modesty  
(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	6.517	2.05
B (Response Order)	1	.510	<1
A X B	1	.260	<1
S(AB) (Error)	44	3.185	
C (Perceiver Role)	1	.010	<1
A X C	1	3.010	1.369
B X C	1	.844	<1
A X B X C	1	.844	<1
C X S(AB) (Error)	44	2.200	

\* $p \leq .05$   
 \*\* $p \leq .001$



## Appendix B.5

Summary of Analysis of Variance on Perceptions of Choice  
(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	.167	<1
B (Response Order)	1	1.500	<1
A X B	1	1.500	<1
S(AB) (Error)	44	3.076	
C (Perceiver Role)	1	1.169	<1
A X C	1	1.169	<1
B X C	1	.178	<1
A X B X C	1	.178	<1
C X S(AB) (Error)	44	2.280	

\* $p \leq .05$   
 \*\* $p \leq .001$



## Appendix B.6

Summary of Analysis of Variance on Perceptions of Successfulness of  
Counselling Session  
(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	.261	<1
B (Response Order)	1	2.344	2.396
A X B	1	.260	<1
S(AB) (Error)	44	.978	
C (Perceiver Role)	1	.094	<1
A X C	1	.096	<1
B X C	1	.510	<1
A X B X C	1	1.260	2.260
C X S(AB) (Error)	44	.558	

\* $p \leq .05$   
 \*\* $p \leq .001$





## Appendix B.7

Summary of Analysis of Variance on Attributions to Personal Factors  
(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	6.000	3.508
B (Response Order)	1	1.089	<1
A X B	1	1.987	<1
S(AB) (Error)	44	1.710	
C (Perceiver Role)	1	1.506	<1
A X C	1	104.167	71.708**
B X C	1	3.375	<1
A X B X C	1	1.042	<1
C X S(AB) (Error)	44	1.453	

\* $p \leq .05$   
 \*\* $p \leq .001$



## Appendix B.8

Summary of Analysis of Variance on Attributions to Situational Factors  
(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	2.344	1.832
B (Response Order)	1	3.760	2.939
A X B	1	4.594	3.591
S(AB) (Error)	44	1.279	
C (Perceiver Role)	1	1.216	1.078
A X C	1	52.510	46.558**
B X C	1	1.760	1.561
A X B X C	1	1.260	1.117
C X S(AB) (Error)	44	1.128	

\* $p \leq .05$   
 \*\* $p \leq .001$



## Appendix B.9

## Summary of Analysis of Variance on Personal-Situational

## Attribution Index

## (Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	15.844	7.135*
B (Response Order)	1	1.785	<1
A X B	1	1.260	<1
S(AB) (Error)	44	2.221	
C (Perceiver Role)	1	7.594	2.839
A X C	1	304.594	113.858**
B X C	1	10.010	3.742
A X B X C	1	4.976	<1
C X S(AB) (Error)	44	2.675	

\* $p \leq .05$   
 \*\* $p \leq .001$





## Appendix B.10

Summary of Analysis of Variance on Bipolar Measure of Credit/Blame  
(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	.844	<1
B (Response Order)	1	.975	<1
A X B	1	.010	<1
S(AB) (Error)	44	1.643	
C (Perceiver Role)	1	1.260	<1
A X C	1	55.510	43.909**
B X C	1	.094	<1
A X B X C	1	10.012	7.92*
C X S(AB) (Error)	44	1.264	

\* $p \leq .05$   
 \*\* $p \leq .001$



## Appendix B.11

## Summary of Analysis of Variance on Unidirectional

## Measure of Credit/Blame

## (Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	1.760	1.513
B (Response Order)	1	3.010	2.587
A X B	1	3.567	3.064
S(AB) (Error)	44	1.164	
C (Perceiver Role)	1	.028	<1
A X C	1	90.094	66.023**
B X C	1	1.297	<1
A B X C	1	.094	<1
C X S(AB) (Error)	44	1.365	

\* $p \leq .05$   
 \*\* $p \leq .001$



## Appendix B.12

Summary of Analysis of Variance on Perceptions of Actor Responsibility  
(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	1.761	1.075
B (Response Order)	1	.094	<1
A X B	1	.260	<1
S(AB) (Error)	44	1.637	
C (Perceiver Role)	1	4.594	2.971
A X C	1	71.760	46.405**
B X C	1	7.594	4.911**
A X B X C	1	.510	<1
C X S(AB) (Error)	44	1.546	

\* $p \leq .05$   
 \*\* $p \leq .001$



## Appendix B.13

Summary of Analysis of Variance on Perceptions of Client Responsibility  
(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	.813	<1
B (Response Order)	1	5.042	2.370
A X B	1	10.667	5.015*
S (AB) (Error)	44	2.127	
C (Perceiver Role)	1	3.375	2.648
A X C	1	24.000	18.829**
B X C	1	1.509	1.183
A X B X C	1	1.042	<1
C X S(AB) (Error)	44	1.275	

\* $p \leq .05$   
 \*\* $p \leq .001$





## Appendix B.14

Summary of Analysis of Variance on Actor-Client Responsibility Index  
(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	2.344	<1
B (Response Order)	1	3.760	1.040
A X B	1	14.260	3.943 <sup>1</sup>
S(AB) (Error)	44	3.616	
C (Perceiver Role)	1	.094	<1
A X C	1	178.760	67.636**
B X C	1	2.041	<1
A X B X C	1	3.010	1.139
C X S(AB) (Error)	44	2.643	

\* $p \leq .05$   
 \*\* $p \leq .001$   
<sup>1</sup> $p = .054$



## Appendix B.15

Summary of Analysis of Variance on Perceptions of Reward Deservingness  
(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	.079	<1
B (Response Order)	1	16.667	9.966*
A X B	1	2.667	1.595
S(AB) (Error)	44	1.672	
C (Perceiver Role)	1	4.167	1.494
A X C	1	32.667	11.709**
B X C	1	.042	<1
A X B X C	1	.375	<1
C X S(AB) (Error)	44	2.790	

\* $p \leq .05$   
 \*\* $p \leq .001$



## Appendix B.16

Summary of Analysis of Variance on Response Latency Measures for each  
Major Dependent Measure Separately<sup>1</sup>  
(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	12.891	<1
B (Response Order)	1	.680	<1
A X B	1	32.016	<1
C (Sex)	1	119.063	1.230
A X C	1	4.383	<1
B X C	1	64.641	<1
A X B X C	1	1.088	<1
S(ABC) (Error)	40	96.805	
D (Perceiver Role)	1	563.696	6.964*
A X D	1	480.539	5.936*
B X D	1	28.359	<1
A X B X D	1	.938	<1
C X D	1	285.281	3.524
A X C X D	1	2.203	<1
B X C X D	1	195.797	2.419
A X B X C X D	1	9.375	<1
D X S(ABC) (Error)	40	80.947	
E (Type of Question)	3	640.313	27.769**
A X E	3	5.578	<1
B X E	3	136.789	5.932**
A X B X E	3	7.781	<1
C X E	3	36.703	1.592
A X C X E	3	25.011	1.093
B X C X E	3	72.836	3.159*
A X B X C X E	3	27.703	1.021
E X S(ABC) (Error)	120	23.058	
D X E	3	2.188	<1
A X D X E	3	22.042	<1
B X D X E	3	7.133	<1
A X B X D X E	3	36.266	1.490
C X D X E	3	6.594	<1
A X C X D X E	3	23.125	<1
B X C X D X E	3	17.695	<1
A X B X C X D X E	3	60.156	2.471
D X E X S(ABC) (Error)	120	24.347	

\* $p < .05$ \*\* $p < .001$ 

<sup>1</sup>In this analysis, response latencies to the four major dependent measures were included separately.



## Appendix B.17

Summary of Analysis of Variance on Response Latency Measures within each  
Class of Judgment<sup>1</sup>  
(Experiment 1)

Source	df	Ms	F
A (Evaluation Context)	1	6.442	<1
B (Response Order)	1	.334	<1
A X B	1	16.042	<1
S(AB) (Error)	44	46.150	
C (Perceiver Role)	1	281.848	6.649*
A X C	1	240.270	5.668*
B X C	1	14.186	<1
A X B X C	1	.467	<1
C X S(AB) (Error)	44	42.393	
D (Type of Question)	1	.483	<1
A X D	1	1.705	<1
B X D	1	62.862	4.762*
A X B X D	1	5.153	<1
D X S(AB) (Error)	44	13.200	
C X D	1	.176	<1
A X C X D	1	3.636	<1
B X C X D	1	5.710	<1
A X B X C X D	1	14.224	<1
C X D X S(AB) (Error)	44	14.140	

\* $p \leq .05$

\*\* $p \leq .001$

<sup>1</sup>In this analysis, an average response latency was computed for each class of judgment.





## Appendix C.1

Mean Response Latencies to Personal Attribution, Situational Attribution,  
Bipolar Credit/Blame, and Reward Assignment Measures as a Function of  
Sex and Response Order  
(Experiment 1)

Response Order X Sex	Type of Question			
	Personal Attribution	Situational Attribution	Credit/ Blame	Reward Assignment
Males				
Causal Attribution First	11.31 <sub>abcd</sub>	15.16 <sub>cd</sub>	13.42 <sub>bcd</sub>	7.21 <sub>ab</sub>
Sanctioning Evaluation First	13.38 <sub>bcd</sub>	11.08 <sub>abcd</sub>	15.52 <sub>cd</sub>	10.72 <sub>abcd</sub>
Females				
Causal Attribution First	10.29 <sub>abcd</sub>	12.24 <sub>abcd</sub>	13.94 <sub>cd</sub>	9.45 <sub>abc</sub>
Sanctioning Evaluation First	10.59 <sub>abcd</sub>	9.71 <sub>abcd</sub>	16.17 <sub>d</sub>	6.51 <sub>a</sub>

Note. The higher the mean, the longer the response latency (in secs). Means sharing no common subscripts differ significantly at the .05 level using Duncan's multiple range test.



Appendix D.1  
Revised Public Instructions  
(Experiment 2)

"Please note that contrary to what you may have been told in your psychology 260 class, there are some experiments where no aspect of your behavior remains anonymous. This means that no aspect of your behavior or your interpretation (that is, evaluation) of the student counsellor's performance will remain anonymous in this experiment. That is, both I and the team of psychologists associated with the study will see your answers to the questions. The team of psychologists will be here soon to evaluate the entire session and the participants in it. They will want to see your answers to the questions and, to facilitate their evaluation, they will meet with each of you *individually* (verbal emphasis) to verbally discuss with you your answers to the questions. After this is finished, I will dismiss each of you separately from the experiment. We will now proceed to the evaluation phase."



## Appendix D.2

### Task Difficulty Manipulation Instructions

#### (Experiment 2)

"Okay, as you can see over your monitors, I've dismissed the client from the experiment. As you could tell from looking at your meters and from what the client said, the client was feeling:

*SUCCESS/LOW TASK DIFFICULTY*: pretty relaxed by the end of the counselling session. I should tell you that, of the two hundred and some odd students that we've run in the study, I'd say about 85% of them actually succeeded in relaxing their respective clients. Now, what this means is that the counselling task--on the whole--is a pretty easy task and, hence, most people do well on it. Both the observer and the counsellor should take this into account when they evaluate the counsellor's performance. In a moment we'll go on to the evaluation phase, but before we do that, I have a couple of other points to make..." (public instructions and dependent measure instructions administered)

*SUCCESS/HIGH TASK DIFFICULTY*: pretty relaxed by the end of the counselling session. I should tell you that, of the two hundred and some odd students that we've run in the study, I'd say about 15% of them actually succeeded in relaxing their respective clients. Now, what this means is that the counselling task--on the whole--is a pretty



difficult task and, hence, most people don't do well on it. Both the observer and the counsellor should take this into account when they evaluate the counsellor's performance. In a moment we'll go on to the evaluation phase, but before we do that, I have a couple of other points to make..."

(public instructions and dependent measure instructions administered)

*SUCCESS/NO INFORMATION:* pretty relaxed by the end of the counselling session. In a moment we'll go on to the evaluation phase, but before we do that, I have a couple of other points to make..." (public instructions and dependent measure instructions administered)

*FAILURE/LOW TASK DIFFICULTY:* pretty tense by the end of the counselling session. I should tell you that, of the two hundred and some odd students that we've run in the study, I'd say about 85% of them actually succeeded in relaxing their respective clients. Now, what this means is that the counselling task--on the whole--is a pretty easy task and, hence, most people do well on it. Both the observer and the counsellor should take this into account when they evaluate the counsellor's performance. In a moment we'll go on to the evaluation phase, but before we do that, I have a couple of other points to make..." (public instructions and dependent measure instructions administered)

*FAILURE/HIGH TASK DIFFICULTY:* pretty tense by the end of the counselling session. I should tell you that, of the





two hundred and some odd students that we've run in the study, I'd say about 15% of them actually succeeded in relaxing their respective clients. Now, what this means is that the counselling task--on the whole--is a pretty difficult task and, hence, most people don't do well on it. Both the observer and the counsellor should take this into account when they evaluate the counsellor's performance. In a moment we'll go on to the evaluation phase, but before we do that, I have a couple of other points to make..." (public instructions and dependent measure instructions administered)

*FAILURE/NO INFORMATION:* pretty tense by the end of the counselling session. In a moment we'll go on to the evaluation phase, but before we do that, I have a couple of other points to make..." (public instructions and dependent measure instructions administered).



## Appendix E.1

Summary of Analysis of Variance on Perceptions of Successfulness of  
Counselling Session  
(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	744.188	1094.617**
B (Task Difficulty)	2	1.568	2.306
A X B	2	.203	<1
S(AB) (Error)	90	.680	
C (Perceiver Role)	1	.521	<1
A X C	1	.083	<1
B X C	2	2.724	4.514*
A X B X C	2	3.318	5.498*
C X S(AB) (Error)	90	.603	

\* $p \leq .05$   
 \*\* $p \leq .001$



## Appendix E.2

Summary of Analysis of Variance on Estimated Percentage of Prior Students'  
 Success Rate  
 (Experiment 2)

Source	df	Ms	F
A (Outcome)	1	6.310	25.134**
B (Task Difficulty)	2	62.344	248.329**
A X B	2	5.785	23.042**
S(AB) (Error)	89	.251	
C (Perceiver Role)	1	.129	<1
A X C	1	.623	3.025
B X C	2	.222	1.075
A X B X C	2	.469	2.274
C X S(AB) (Error)	89	.206	

\* $p \leq .05$   
 \*\* $p \leq .001$



## Appendix E.3

Summary of Analysis of Variance on Estimates of Task Difficulty  
(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	75.000	38.366**
B (Task Difficulty)	2	19.271	9.858**
A X B	2	.250	<1
S(AB) (Error)	90	1.955	
C (Perceiver Role)	1	31.688	13.369**
A X C	1	24.082	10.161*
B X C	2	1.688	<1
A X B X C	2	7.271	3.068*
C X S(AB) (Error)	90	2.370	

\* $p \leq .05$   
 \*\* $p \leq .001$





## Appendix E.4

Summary of Analysis of Variance on Perceptions of Choice  
(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	2.274	1.183
B (Task Difficulty)	2	.471	<1
A X B	2	2.577	1.340
S(AB) (Error)	88	1.923	
C (Perceiver Role)	1	2.724	1.604
A X C	1	6.284	3.700 <sup>1</sup>
B X C	2	3.634	2.140
A X B X C	2	.673	<1
C X S(AB) (Error)	88	1.698	

\* $p \leq .05$   
 \*\* $p \leq .001$   
<sup>1</sup> $p = .058$



## Appendix E.5

## Summary of Analysis of Variance on Feelings of Cautiousness

## (Experiment 2)

Source	df	Ms	F
A (Outcome)	1	22.122	6.593*
B (Task Difficulty)	2	.101	<1
A X B	2	3.028	<1
S(AB) (Error)	89	3.356	
C (Perceiver Role)	1	42.781	17.149**
A X C	1	4.908	1.967
B X C	2	.886	<1
A X B X C	2	1.290	<1
C X S(AB) (Error)	89	2.495	

\* $p \leq .05$   
 \*\* $p \leq .001$



## Appendix E.6

Summary of Analysis of Variance on Attributions to Personal Factors  
(Experiment 2)

Source	df	Ms	F
A (Sex)	1	.422	<1
B (Response Order)	1	2.755	2.779
A X B	1	1.505	1.518
C (Outcome)	1	14.630	14.758**
A X C	1	.637	<1
B X C	1	4.381	4.419*
A X B X C	1	.422	<1
D (Task Difficulty)	2	.984	<1
A X D	2	2.078	2.096
B X D	2	4.818	4.860*
A X B X D	2	2.662	2.685
C X D	2	33.818	34.114**
A X C X D	2	.224	<1
B X C X D	2	.255	<1
A X B X C X D	2	.203	<1
S(ABCD) (Error)	72	.991	
E (Perceiver Role)	1	.884	<1
A X E	1	.635	<1
B X E	1	.631	<1
A X B X E	1	.256	<1
C X E	1	249.797	353.521**
A X C X E	1	1.173	1.660
B X C X E	1	2.755	3.899
A X B X C X E	1	2.790	3.946*
D X E	2	6.630	9.384**
A X D X E	2	2.287	3.236*
B X D X E	2	.897	<1
A X B X D X E	2	.224	<1
C X D X E	2	1.442	2.039
A X C X D X E	2	.140	<1
B X C X D X E	2	.005	<1
A X B X C X D X E	2	.850	<1
E X S(ABCD) (Error)	72	.707	

\* $p \leq .05$   
 \*\* $p \leq .001$



## Appendix E.7

Summary of Analysis of Variance on Attributions to Situational Factors  
(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	26.256	18.087**
B (Task Difficulty)	2	.068	<1
A X B	2	27.130	18.689**
C (Response Order)	1	.047	<1
A X C	1	1.881	1.296
B X C	2	.297	<1
A X B X C	2	.317	<1
S(ABC) (Error)	84	1.452	
D (Perceiver Role)	1	.131	<1
A X D	1	206.254	305.629**
B X D	2	.474	<1
A X B X D	2	2.225	3.296*
C X D	1	.422	<1
A X C X D	1	4.381	6.492*
B X C X D	2	.391	<1
A X B X C X D	2	2.224	3.295*
D X S(ABC) (Error)	84	.675	

\* $p \leq .05$   
 \*\* $p \leq .001$





## Appendix E.8

Summary of Analysis of Variance on Personal-Situational Attribution Index  
(Experiment 2)

Source	df	Ms	F
A (Sex)	1	.021	<1
B (Task Difficulty)	2	1.529	<1
A X B	2	4.083	1.234
C (Response Order)	1	2.097	<1
A X C	1	.521	<1
B X C	2	4.646	1.404
A X B X C	2	10.333	3.123*
D (Outcome)	1	80.083	24.201**
A X D	1	.188	<1
B X D	2	121.083	36.592**
A X B X D	2	.187	<1
C X D	1	12.000	3.626
A X C X D	1	1.091	<1
B X C X D	2	.750	<1
A X B X C X D	2	1.271	<1
S(ABCD) (Error)	72	3.309	
E (Perceiver Role)	1	1.688	1.006
A X E	1	.333	<1
B X E	2	5.813	3.466*
A X B X E	2	6.021	3.590*
C X E	1	.098	<1
A X C X E	1	.356	<1
B X C X E	2	.271	<1
A X B X C X E	2	.146	<1
D X E	1	910.021	542.621**
A X D X E	1	.749	<1
B X D X E	2	6.395	3.813*
A X B X D X E	2	.562	<1
C X D X E	1	.187	<1
A X C X D X E	1	3.001	1.789
B X C X D X E	2	2.312	1.379
A X B X C X D X E	2	1.936	1.155
E X S(ABCD) (Error)	72	1.677	

\* $p \leq .05$   
 \*\* $p \leq .001$



## Appendix E.9

Summary of Analysis of Variance on Attributions to Actors' Ability  
(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	12.000	8.767*
B (Task Difficulty)	2	.109	<1
A X B	2	32.953	24.075**
S(AB) (Error)	90	1.369	
C (Perceiver Role)	1	6.020	8.093*
A X C	1	252.082	338.934**
B X C	2	2.100	2.823
A X B X C	2	.381	<1
C X S(AB) (Error)	90	.744	

\* $p \leq .05$   
 \*\* $p \leq .001$



## Appendix E.10

Summary of Analysis of Variance on Attributions to Task Difficulty  
(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	7.922	4.617*
B (Task Difficulty)	2	1.271	<1
A X B	2	10.188	5.938*
S(AB) (Error)	90	1.716	
C (Perceiver Role)	1	1.879	2.021
A X C	1	135.008	145.246*
B X C	2	2.334	2.511
A X B X C	2	5.145	5.535*
C X S(AB) (Error)	90	.930	

\* $p \leq .05$   
 \*\* $p \leq .001$



## Appendix E.11

Summary of Analysis of Variance on Attributions to Actors' Effort  
(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	60.750	38.880**
B (Task Difficulty)	2	1.506	<1
A X B	2	1.984	1.270
C (Sex)	1	.521	<1
A X C	1	10.084	6.454*
B X C	2	1.099	<1
A X B X C	2	1.349	<1
S(ABC) (Error)	84	1.563	
D (Perceiver Role)	1	.188	<1
A X D	1	85.334	44.730**
B X D	2	.987	<1
A X B X D	2	1.942	1.018
C X D	1	.188	<1
A X C X D	1	1.332	<1
B X C X D	2	5.078	2.662
A X B X C X D	2	1.350	<1
D X S(ABC) (Error)	84	1.908	

\* $p \leq .05$   
 \*\* $p \leq .001$





## Appendix E.12

Summary of Analysis of Variance on Internal-External Attribution Index  
(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	71.297	26.878**
B (Task Difficulty)	2	1.176	.433
A X B	2	41.848	15.776*
S(AB) (Error)	90	2.653	
C (Perceiver Role)	1	5.672	2.990
A X C	1	584.505	308.169**
B X C	2	4.480	2.362
A X B X C	2	4.829	2.546
C X S(AB) (Error)	90	1.897	

\* $p \leq .05$   
 \*\* $p \leq .001$



## Appendix E.13

Summary of Analysis of Variance on Bipolar Measure of Credit/Blame  
(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	148.756	135.728**
B (Task Difficulty)	2	24.021	21.918*
A X B	2	4.521	4.125*
C (Response Order)	1	.881	<1
A X C	1	1.879	1.714
B X C	2	.333	<1
A X B X C	2	2.896	2.643
S(ABC) (Error)	84	1.096	
D (Perceiver Role)	1	178.256	371.435**
A X D	1	.879	1.831
B X D	2	1.271	2.647
A X B X D	2	.146	<1
C X D	1	1.504	3.134
A X C X D	1	.008	<1
B X C X D	2	.271	<1
A X B X C X D	2	.082	<1
D X S(ABC) (Error)	84	.480	

\* $p \leq .05$   
 \*\* $p \leq .001$



## Appendix E.14

Summary of Analysis of Variance on Rescaled Measure of Credit/Blame  
(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	23.381	21.333**
B (Task Difficulty)	2	4.521	4.126*
A X B	2	24.021	21.917**
C (Response Order)	1	1.881	1.716
A X C	1	.879	<1
B X C	2	2.896	2.642 <sup>1</sup>
A X B X C	2	.334	<1
S(ABC) (Error)	84	1.096	
D (Perceiver Role)	1	.881	1.835
A X D	1	178.254	371.431**
B X D	2	.146	<1
A X B X D	2	1.271	2.649 <sup>1</sup>
C X D	1	.004	<1
A X C X D	1	1.508	3.142 <sup>1</sup>
B X C X D	2	.084	<1
A X B X C X D	2	.270	<1
A X D(ABC)	84	.480	

\* $p \leq .05$   
 \*\* $p \leq .001$   
<sup>1</sup> $p \leq .08$



## Appendix E.15

Summary of Analysis of Variance on Perceptions of Actor Responsibility  
(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	24.083	14.331**
B (Task Difficulty)	2	3.349	1.993
A X B	2	37.443	22.280**
S(AB) (Error)	90	1.681	
C (Perceiver Role)	1	.184	<1
A X C	1	229.685	390.953**
B X C	2	2.685	4.654*
A X B X C	2	.392	<1
C X S(AB) (Error)	90	.587	

\* $p \leq .05$   
 \*\* $p \leq .001$





## Appendix E.16

Summary of Analysis of Variance on Perceptions of Client Responsibility  
(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	50.020	31.508**
B (Task Difficulty)	2	.141	<1
A X B	2	.537	<1
S(AB) (Error)	90	1.587	
C (Perceiver Role)	1	1.332	<1
A X C	1	150.523	79.339**
B X C	2	.256	<1
A X B X C	2	4.941	2.605
C X S(AB) (Error)	90	1.897	

\* $p \leq .05$   
 \*\* $p \leq .001$



## Appendix E.17

Summary of Analysis of Variance on Actor-Client Responsibility Index  
(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	4.688	1.284
B (Task Difficulty)	2	4.849	1.328
A X B	2	38.297	10.486**
S(AB) (Error)	90	3.652	
C (Perceiver Role)	1	2.521	<1
A X C	1	752.083	233.859**
B X C	2	1.349	<1
A X B X C	2	7.130	2.217
C X S(AB) (Error)	90	3.216	

\* $p \leq .05$   
 \*\* $p \leq .001$



Summary of Analysis of Variance on Perceptions of Actors' Reward  
Deservingness  
(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	300.000	295.168**
B (Task Difficulty)	2	7.693	7.569**
A X B	2	5.922	5.827*
C (Response Order)	1	1.021	1.005
A X C	1	1.334	1.313
B X C	2	2.442	2.403
A X B X C	2	.317	<1
S(ABC) (Error)	84	1.016	
D (Perceiver Role)	1	221.021	290.658**
A X D	1	4.084	5.371*
B X D	2	2.192	2.883
A X B X D	2	.067	<1
C X D	1	.188	<1
A X C X D	1	1.332	1.752
B X C X D	2	1.172	1.541
A X B X C X D	2	.318	<1
D X S(ABC) (Error)	84	.760	

\* $p \leq .05$   
 \*\* $p \leq .001$



## Appendix E.19

Summary of Analysis of Variance on Response Latency Measures<sup>1</sup>

(Experiment 2)

Source	df	Ms	F
A (Outcome)	1	14.750	0.279
B (Task Difficulty)	2	44.234	0.836
AB	2	106.383	2.012
C (Response Order)	1	5.563	0.105
AC	1	4.859	0.092
BC	2	0.313	0.006
ABC	2	167.656	2.170*
D (Sex)	1	115.234	2.179
AD	1	2.047	0.039
BD	2	35.336	0.668
ABD	2	31.063	0.587
CD	1	115.344	2.181
ACD	1	48.188	0.911
BCD	2	58.227	1.101
ABCD	2	20.219	0.382
S(ABCD)(Error)	72	52.881	
E (Perceiver Role)	1	2.016	0.039
AE	1	4.469	0.087
BE	2	19.320	0.375
ABE	2	2.180	0.042
CE	1	88.797	1.725
ACE	1	60.250	1.171
BCE	2	55.578	1.080
ABCE	2	118.055	2.294
DE	1	8.688	0.169
ADE	1	4.734	0.092
BDE	2	83.484	1.622
ABDE	2	16.891	0.328
CDE	1	41.813	0.812
ACDE	1	4.594	0.089
BCDE	2	36.406	0.707
ABCDE	2	27.836	0.541
E X S(ABCD) (Error)	72	51.467	

(Continued)





## Appendix E.19 (continued)

Summary of Analysis of Variance on Response Latency Measures<sup>1</sup>  
(Experiment 2)

Source	df	Ms	F
F (Type of Question)	3	484.625	29.551**
AF	3	6.344	0.387
BF	6	8.445	0.515
ABF	6	24.693	1.506
CF	3	13.083	0.798
ACF	3	17.854	1.089
BCF	6	54.104	3.299*
ABCF	6	2.810	0.171
DF	3	26.656	1.625
ADF	3	53.635	3.271*
BDF	6	26.456	1.613
ABDF	6	23.245	1.417
CDF	3	1.385	0.084
ACDF	3	9.042	0.551
BCDF	6	11.711	0.714
ABCDF	6	9.880	0.602
F X S(ABCD) (Error)	216	16.400	
EF	3	18.938	1.248
AEF	3	7.948	0.524
BEF	6	21.583	1.423
ABEF	6	19.760	1.303
CEF	3	8.188	0.540
ACEF	3	4.901	0.323
BCEF	6	9.865	0.650
ABCEF	6	20.536	1.354
DEF	3	11.807	0.778
ADEF	3	23.115	1.524
BDEF	6	11.193	0.738
ABDEF	6	11.102	0.732
CDEF	3	11.792	0.777
ACDEF	3	15.339	1.011
BCDEF	6	42.070	2.773*
ABCDEF	6	14.438	0.952
E X F X S(ABCD) (Error)	216	15.170	

\* $p \leq .05$ \*\* $p \leq .001$ 

<sup>1</sup>In this analysis, response latencies to each major dependent measure were included.



## Appendix F.1

Mean Personal Attributions partitioned by Sex, Perceiver Role, and  
Task Difficulty  
(Experiment 2)

Task Difficulty	Sex			
	Males		Females	
	Actor	Observer	Actor	Observer
High	4.56 <sub>ab</sub>	5.44 <sub>b</sub>	4.95 <sub>ab</sub>	5.00 <sub>ab</sub>
Low	5.25 <sub>b</sub>	4.13 <sub>a</sub>	5.44 <sub>b</sub>	4.96 <sub>ab</sub>
No Information	4.75 <sub>ab</sub>	4.94 <sub>ab</sub>	4.82 <sub>ab</sub>	4.50 <sub>ab</sub>

Note. The higher the mean, the greater the personal attribution. Means sharing no subscripts in common differ significantly at the .05 level using Duncan's multiple range test.



## Appendix F.2

Mean Personal Attributions partitioned by Sex, Perceiver Role, Outcome,  
and Response Order  
(Experiment 2)

	Actor		Observer	
	Success	Failure	Success	Failure
Causal Attribution Last				
Male	6.67 <sub>d</sub>	2.92 <sub>a</sub>	3.92 <sub>ab</sub>	6.00 <sub>cd</sub>
Female	6.75 <sub>d</sub>	3.75 <sub>ab</sub>	4.42 <sub>b</sub>	5.67 <sub>cd</sub>
Causal Attribution First				
Male	5.92 <sub>cd</sub>	3.94 <sub>ab</sub>	3.75 <sub>ab</sub>	5.69 <sub>cd</sub>
Female	6.17 <sub>cd</sub>	3.58 <sub>ab</sub>	3.75 <sub>ab</sub>	5.42 <sub>c</sub>

Note. The higher the mean, the greater the personal attribution. Means sharing no subscripts in common differ significantly at the .05 level using Duncan's multiple range test.



## Appendix F.3

Mean Personal-Situational Attribution Index Scores partitioned Sex,  
Perceiver Role, and Task Difficulty  
(Experiment 2)

Task Difficulty	Male		Female	
	Actor	Observer	Actor	Observer
High	.689 <sub>b</sub>	1.375 <sub>b</sub>	.813 <sub>b</sub>	.627 <sub>b</sub>
Low	1.313 <sub>b</sub>	-.188 <sub>a</sub>	1.250 <sub>b</sub>	1.000 <sub>b</sub>
No Information	.500 <sub>b</sub>	1.000 <sub>b</sub>	.625 <sub>b</sub>	.250 <sub>b</sub>

Note. More positive scores reflect a higher personal than situational attribution. Means sharing no subscripts in common differ significantly at the .05 level using Duncan's multiple range procedure.





## Appendix F.4

Mean Personal-Situational Attribution Index Scores partitioned by  
Sex, Task Difficulty, and Response Order  
(Experiment 2)

Task Difficulty	Causal Attribution First		Causal Attribution Last	
	Males	Females	Males	Females
High	1.44	.69	.63	.75
Low	.56	.44	.56	1.81
No Information	.19	.69	1.31	.19

Note. More positive scores reflect a greater personal than situational attribution.



## Appendix F.5

Mean Response Latencies as a function of Outcome, Sex, and Type of  
Question  
(Experiment 2)

Sex X Outcome	Type of Question			
	Personal Attribution	Situational Attribution	Credit/ Blame	Reward Deservingness
Males				
Success	5.31	7.16	7.99	4.60
Failure	4.00	7.19	8.29	4.06
Females				
Success	5.63	8.12	8.93	5.07
Failure	7.27	6.74	7.72	5.31

Note. The higher the mean, the longer the response latency (in secs).



# Appendix F.6

Mean Response Latencies as a Function of Response Order, Perceiver Role, Sex, Task Difficulty, and Type of Question  
(Experiment 2)

Response Order X Perceiver Role X Sex									
Task Difficulty X Type of Question	Causal Attribution First				Causal Attribution Last				
	Actor		Observer		Actor		Observer		
	Males	Females	Males	Females	Males	Females	Males	Females	
Personal Attribution									
High	2.38	3.46	1.25	5.75	6.22	7.92	5.27	5.71	
Low	3.87	8.48	6.88	8.12	3.51	5.22	4.94	5.13	
No Information	4.30	6.74	4.62	6.89	6.44	8.49	6.15	5.48	
Situational Attribution									
High	8.72	1.86	6.21	11.24	6.24	5.51	10.04	5.69	
Low	6.30	10.12	6.32	4.93	5.85	8.32	6.71	8.70	
No Information	6.03	8.00	8.11	10.85	8.12	8.32	6.44	5.66	
Credit-Blame									
High	8.36	7.80	7.99	8.54	7.91	10.28	7.56	6.73	
Low	5.75	7.98	6.55	7.29	5.80	11.95	9.15	7.86	
No Information	7.24	9.28	9.28	9.21	13.87	7.45	8.21	5.55	
Reward Deservingness									
High	4.29	5.72	4.97	8.27	5.04	3.23	2.12	5.26	
Low	4.20	5.21	3.57	3.93	3.82	5.42	4.28	4.62	
No Information	3.84	6.21	3.40	5.78	6.36	5.23	6.07	3.39	
								263	

Note. The higher the mean, the longer the response latency (in secs).













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